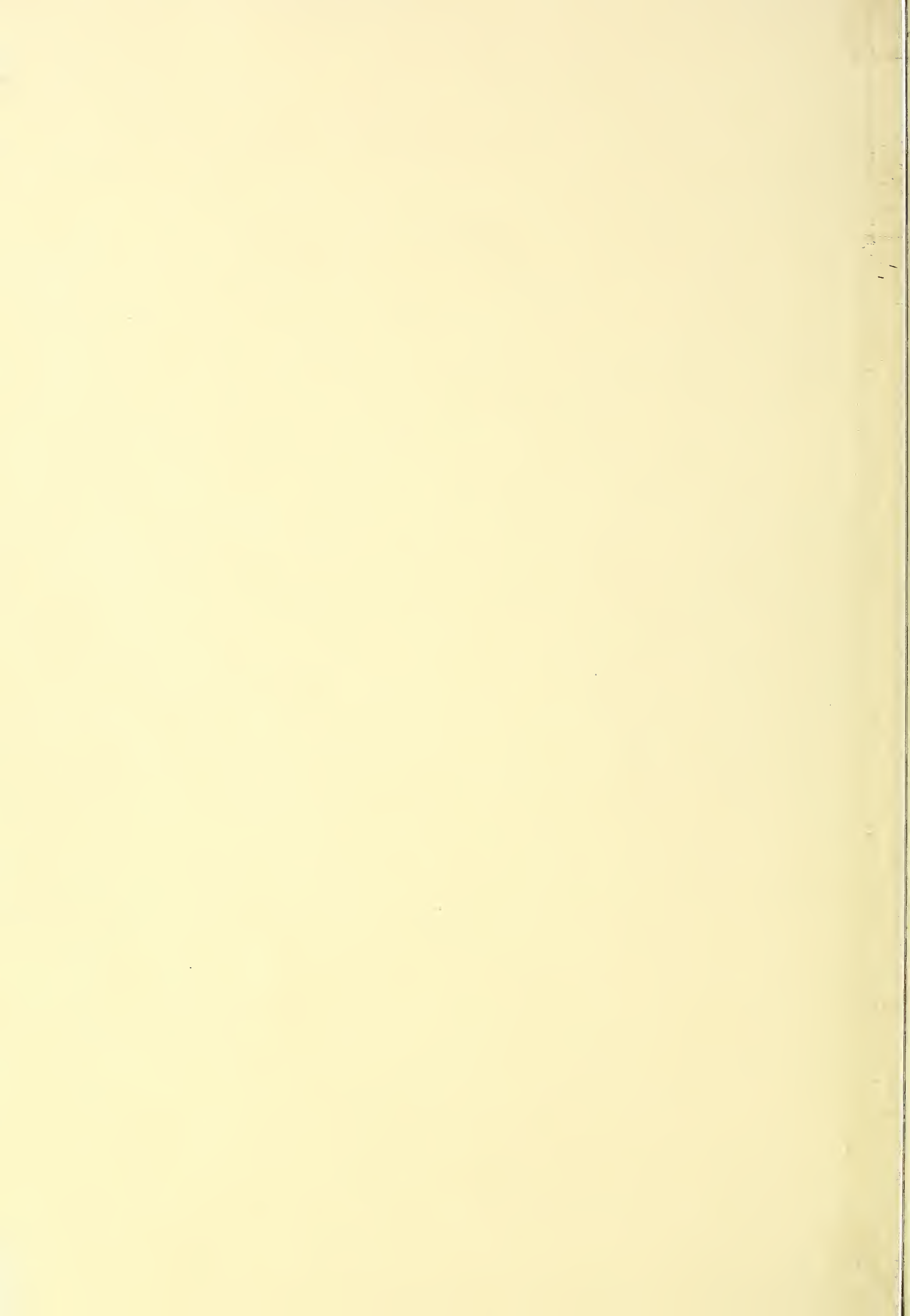


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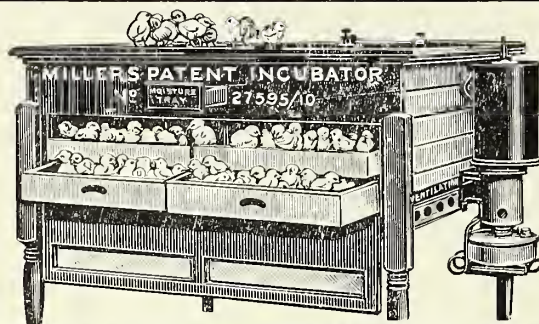
ISSUE

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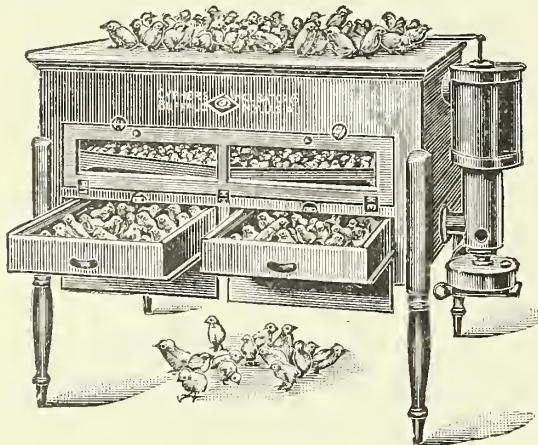
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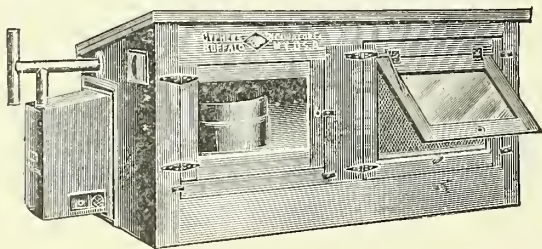
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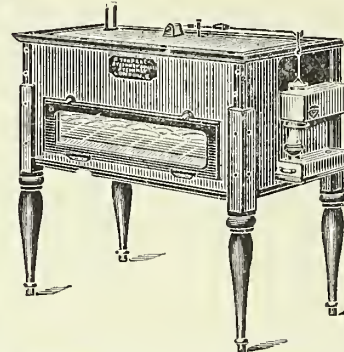
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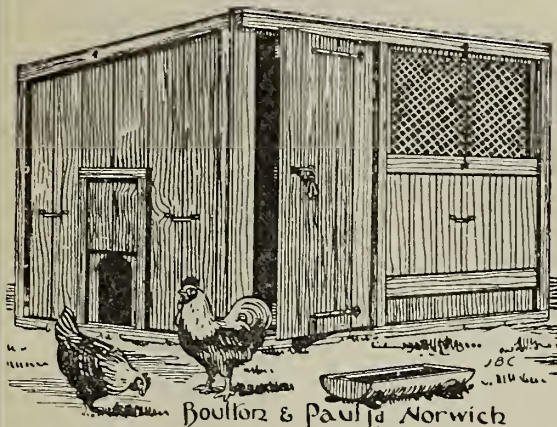
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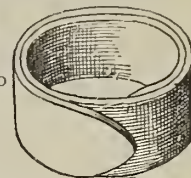
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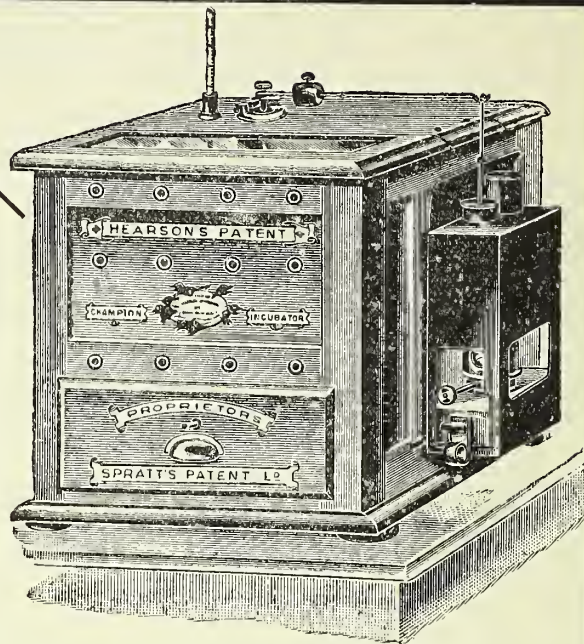


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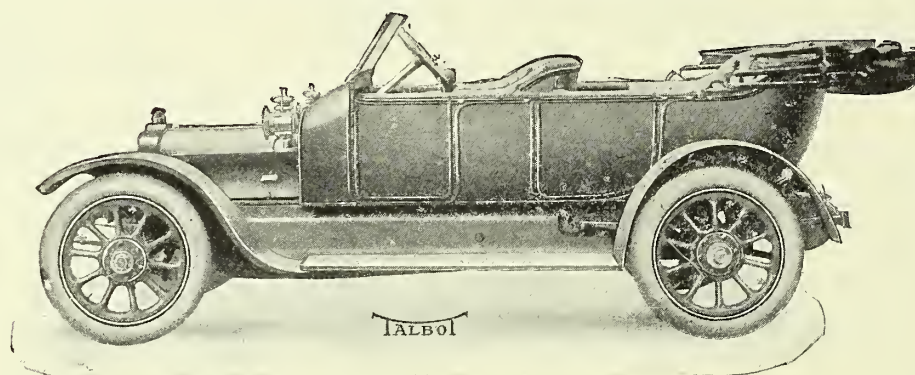
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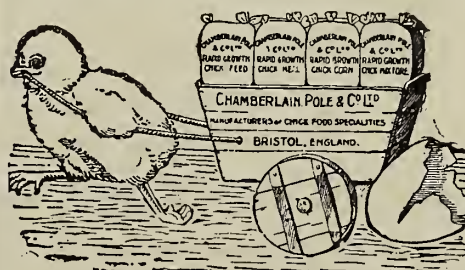
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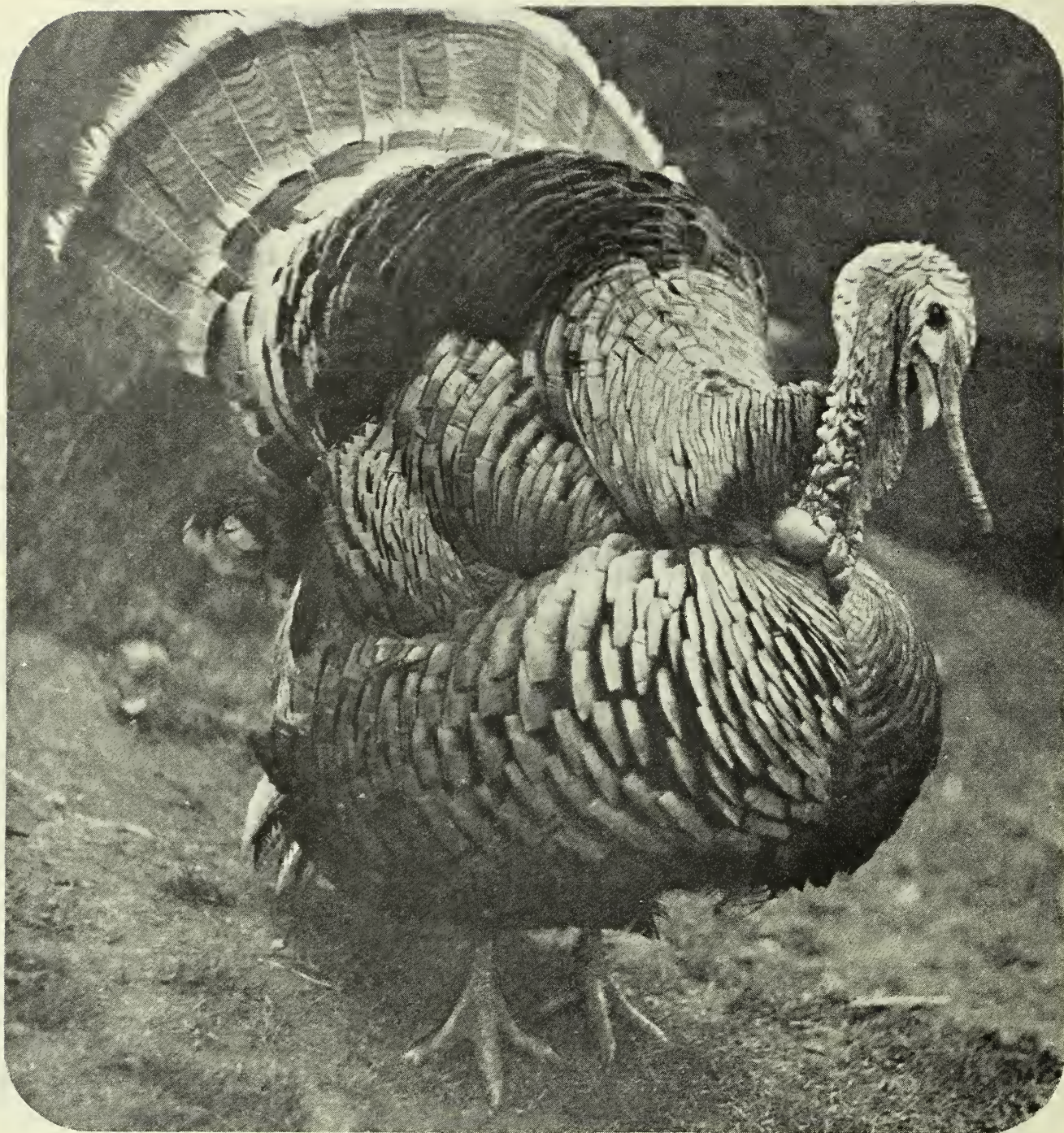
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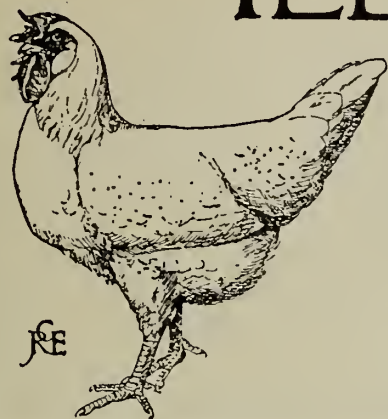


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# THE ILLUSTRATED POULTRY RECORD



Vol. V.—No. 12.

September 1, 1913.

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*The Editor would like to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.*

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### A Belgian Object Lesson.

That every industry has to pass through periods of difficulty is within the experience of all. We learn more by adversity than by prosperity. Such difficulties arise from inadequate knowledge, or disregard of essential factors, and it is not, therefore, until an industry has passed through the fire that the importance of disregarded influences is realised. Such appears to have been the case in the Malines district of Belgium, where there has grown up within recent years a great table poultry industry, or rather, the business has developed very extensively, owing to a great and growing demand from Germany. The announcement which was made in our June issue that there had been a serious outbreak of disease in East Flanders is fully borne out by the report (the first part) of which we publish in the present number. In this will be seen how badly the poultry breeders and rearers have been hit. Loss of chickens to the extent of eighty per cent. of a season's hatch means disaster. If that unhappy state of affairs continued there could only be one end, namely, abandonment of a pursuit which has brought a large degree of prosperity to a considerable section of the country. In a matter like this it is not sufficient to trace the history of such an epidemic, or to discover the bacteria or parasite which is the immediate cause. What we want to learn are the contributory influences leading to the outbreak. That is the object of Mr. Brown's enquiry, with a view, if possible, of helping our Belgian confreres to retrieve their loss, and our own people to avoid a like result. In this connection it is of special interest that he foreshadowed three and a half years ago what has now taken place.



### International Standards.

At Ghent some time ago meetings were held of what is called "la Federation Internationale d' Aviculture," which was established some years ago largely at the instance of Belgian fanciers. Whilst such a body has great possibilities, up to the present that named has utterly failed to command either confidence or support, chiefly by reason of the fact that it is not representative of the countries really interested. We believe it to be true that the principal clubs or societies in some of the leading countries interested have never been invited to appoint delegates on its committee of management. Much could be said upon this question, but our present purpose is not to discuss the constitution or methods of the Federation, which is mainly if not entirely composed of fanciers, but to record that at the Ghent Congress two resolutions were adopted, as follows:

1st. That the Standards of each country be submitted for the approbation of the International Federation, and their ratification by it will render them obligatory for all other countries.

2nd. A country, with the object of utility, has the right to modify, following its proper needs, the standard of a foreign race, subject to the condition of adding to the name of each race a prefix or a suffix.

These are very practical suggestions, but where the difficulty must arise is the status of the International Federation and its recognition as a representative body by breeders in all the countries concerned. As at present constituted it can scarcely be expected that those who live in countries which have not been consulted as to the constitution or have no voice in the management of that body would accept its decisions as authoritative and binding. Until, therefore, it is able to gain a degree of confidence and support, such resolutions are merely pious opinions, however desirable they may be. The first thing is for it to become in spirit as well as in name a real International Federation of the leading clubs in all the leading countries.

### Superabundant Foxes.

There are those who regard all foxes as superfluous. Others seem to think Master Reynard is like geese in ancient Egypt—sacred. To kill a fox is in the opinion of the latter, almost sacrilege, unless the death penalty is imposed by a regularly constituted Court-Martial, in the shape of Hunters and Huntsmen, and on regularly appointed days of the week. Such seems to be the view of the ninety-seven farmers in the Hunmanby district of East Yorkshire, who have, so it is stated, presented a petition to Lord Middleton, Master of the Malton Fox-

hounds, humbly asking for permission to invite neighbouring packs to assist in the hunting of the eastern section of his area. For a season or two this district has been very little hunted, with the result that foxes abound, and the destruction among poultry has been very great. It is not yet recorded what the answer is. Lord Middleton is himself a poultry breeder, and may be expected to sympathise with the petitioners, unless his *penchant* for sport is the greater. If hunting is to exist at all, it can only be where and when the foxes are kept down to a reasonable degree. Failing that farmers and others, especially when banded together in such number, have no alternative but to organise hunts on their own account in self defence. Of course, Yorkshire men are generally sportive, and in a large farm district may prefer foxes to poultry. We should like to hear what their wives have to say on the subject.

### Co-operation and its Limitations.

Several paragraphs and letters have recently appeared in our contemporaries which are indicative of doubt as to whether co-operation applied to the poultry industry is as valuable as is commonly suggested. For our part we do not wonder that such should be the case. The real explanation is that too much has been expected from it. Like the blessed word "Mesopotamia" it has been thought that the virtue was in the name, not the application of a principle. The latter is everything, the former of little moment. All the co-operation in the world is of no use unless it is conducted on business lines, and it is there where so many local efforts have failed. The mere fact of producers combining together, registering themselves into a co-operative society is only a first step. Unless the system is carried out on the right lines, enabling competition with private traders to be maintained all the time, the latter will win by their more perfect organisation and prompt methods. There are, however, sufficient examples of success achieved in this country to prove that with proper management on the part of those responsible for the control, and loyalty of members, not only can a successful and profitable business be built up, but enhanced returns can be secured for poultry-keepers. Part, at least, of the advance in values which has marked recent years is due to the adoption of co-operative methods, but conditions must also be favourable. There are many sections of the country where at present local demand is so great that all the produce can be sold on the spot. Where such is the case co-operation for sale cannot hope to be successful, and this is often forgotten.



**Professor C. K. Graham.**

As previously mentioned, last year we had a visit to this country from Professor W. R. Graham, of Guelph College, Canada, whose poultry work at that institution is so well known. We have now the pleasure in giving a portrait of his brother, Professor C. K. Graham, who has this year visited the old country specially to study the Irish Co-operative movement, and also schools generally, in order to see whether

**Professor C. K. Graham.**

any methods could be adopted for the negro population in the Southern Sections of the United States of America. Prof. Graham intended visiting the Continent, but his time has been so occupied in Ireland, and a brief visit to London, that such has had to be abandoned.

A Canadian by birth his later work has been in the States, where he was a poultry pioneer at the Storrs College, Connecticut, which plant he designed. That was the first Agricultural College to designate one of its staff as Professor in Poultry Husbandry, and Mr. C. K. Graham was the man. He organised the practical poultrymen of that State into an association which has exerted vast influence. Its meetings are a revelation to those who have attended them. For two years he was Vice-President of the

American Poultry Association. In 1908 he was appointed Director of the Agricultural Department of Hampton Institute, in Virginia. This is an institution with a staff of 300 instructors teaching agriculture and mechanics to negroes, and looking after the farming interests of coloured people throughout the Southern States. A hard and zealous worker, who has won his present position right up from the farm, his is a personality that counts much in any country.

**Fish and Eggs.**

The rapidly increasing consumption of eggs is no doubt due to the advanced price of meat in this and other countries. A new view is expressed by the *Aberdeen Free Press*, which in a recent issue stated that the abnormal demand for eggs is due to the general scarcity of fish, especially herrings, which have been very short indeed this season. A leading egg merchant of the Granite City informed our contemporary that his supply of eggs in the first week of August exactly corresponds to the quantity received in the same week twenty-seven years ago, although the prices then ranged from 8d. to 10d. per dozen, as against 1s. 1d. to 1s. 2d. per dozen this year. Working people could not then afford to buy eggs at more than 9d. per dozen, whereas the same class of people give the higher rates now. This is a result of a general rise in wages, and a greater purchasing power. From information which has reached us, all over the country the number of eggs preserved by traders is very much less than for some years, and in spite of greater foreign supplies it looks as if prices will be higher than ever in the coming winter.

**Fresh Foods and their Virtues.**

Among the multitude of papers read at the International Congress of Doctors whose meetings were held recently in London, one especially should appeal to poultry-men, namely, the effect upon the animal, whether man or other, of food which is not fresh. In one of these papers by Dr. Hopkins, reports were presented as to experiments made on rats, which prove that normal growth is completely arrested when the young animals are fed on food which is good, ample, varied, and corresponds to all the known requirements of rats, but is not fresh. Here we have raised a question which should interest poultry keepers of all grades. It has been stated in Italy that the use of Maize as human food which has been attacked by a mould, has led to a serious disease called "pellagra." If that is so it is evident that the feeding of grain or meal which are similarly affected may be the explanation of many diseases which appear from time to time. It is a well known fact that



much that is regarded as unsuitable for human food is given to animals and birds. Frequently that is simply due to an inferiority which does not affect the relative nutritive values, in which case no harm results. In fact, sometimes the less presentable in appearance is really the better. When, however, stale or even soiled grain, or decayed food of any kind, is so employed, the question is totally different. It may be taken as a positive fact that whatever would be deleterious for humans cannot be good for poultry. The subject is one which demands investigation, for as yet our knowledge is limited in the extreme. The researches of scientists such as reported at the Doctors' Congress

ous elements are destroyed, with malignant consequences. Among perishable products such as eggs and poultry the value of that which is really fresh is very much higher than the kept or preserved. The elements which are vital for health are present in the one and absent in the other. Further, such additions as are made in preservation or chemical changes which follow keeping, even under the best conditions, may be harmful in the extreme. Some time ago the enormous number of deaths in the State of New York from digestive diseases, were attributed by Health Officials to the universal use of canned and preserved foods, and there are those who explain the frequency of appendicitis



**A late brood of Toulouse Goslings.**

[Copyright.]

should help us to a better realisation of the true position of affairs.

#### **Preserved Foods.**

Coming to what may be regarded as the higher branches of the subject, that is, human food, in modern days with our complex conditions of life, in which great masses of people are entirely dependent upon others for their food supplies, the question is of supreme importance. Dr. Schaumann, of Hamburg, pointed out that the newly discovered and priceless elements of diets, upon the absence of which depend such diseases as rickets and scurvy, are highly unstable and delicate, so that when food containing them is kept or preserved with antiseptics, or otherwise maltreated, these preci-

ous elements are destroyed, with malignant consequences. Those who can obtain them will more and more demand fresh eggs and poultry, as in this way they are ensured against what appears to be a grave danger. Such cannot fail to be of service to producers in every country.

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#### **Cheap Eggs.**

A very interesting account is given by Mr. F. L. Pratt in the *Reliable Poultry Journal* of how the heavy cold storage stocks of eggs in America were sold last December by the "Housekeepers' League" at the then low price of 24 cents. (1/-) per dozen. On one day in Philadelphia alone 150,000 dozen were thus sold. All were carefully tested before sale, and were disposed of as cold-stored.



## COLONIAL OPPORTUNITIES.

By J. W. HURST.



ALMOST without exception throughout the British Colonies there are increasing opportunities for the development of the industrial production of eggs and poultry. This is no assumption based upon vague imaginings, but a definite opinion formed as the result of direct inquiry. During the past year it has been part of my work to make extended and particular enquiries regarding agricultural prospects in general throughout the British Empire. In most of my interviews with those who are in possession of first-hand information relative to the local conditions of the more important Colonies, I have been assured of the opportunities that exist for the development of the industry with which we are more immediately concerned. It has, however, *and it is necessary to emphasise this point*, in most cases been impressed upon me that poultry farming in the Colonies should be undertaken as a side line or branch of agriculture (or other use of the land) and not as a "pure and simple" occupation. This so far agrees with the common experience of home producers that I do not suppose there are many who will take exception to it as a general proposition, although there may be exceptional opportunities in exceptional circumstances. That there are many Colonials with whom poultry and egg production is a *chief* occupation is a fact within my own knowledge, but, on the other hand, I do not know of one successful man with whom it is a *sole* occupation. In other words, I have not found that the conditions in this respect are very different from those at home. Other conditions are naturally variable and opportunities unequal, but whilst it is inevitable that the progress should be greater in some instances than in others, it is an acknowledged fact that the forward movement is widespread and that the Colonies as a whole are ready for the development of the industry upon economic lines.

## AUSTRALIA.

The very marked general advance in Australia owes much to Government assistance in the promotion of production. The State authorities report a very promising outlook in South Australia, where new markets have disposed of the previous question of an unsaleable surplus and transformed it into one of meeting the demands. The Queensland Department of Agriculture speak of the wasted opportunities of the favourable climate and the peculiarly suitable conditions that prevail in that State.

In New South Wales poultry farming is being increasingly and profitably undertaken in conjunction with small fruit growing, nevertheless there is a keen and unsatisfied demand for good table poultry in Sydney; whilst in Western Australia the value of imported produce is between £40,000 and £50,000 per annum, despite the fact that all descriptions of domesticated fowls thrive well in the State.

The Scottish Agricultural Commission to Australia reported that the country "possesses natural advantages of almost unequalled value for the profitable keeping of poultry. In climate, soil, shelter, and in natural food she has the essential attributes of success. Diseases of an infectious or organic order are little known." Housing presents no problem and poultry food is relatively cheap. Although in the remote agricultural districts the profitableness of other produce tends to obscure the advantages of poultry production, mixed farmers realize that fowls minimize waste. But around the chief cities poultry keeping is very popular and highly remunerative.

The outstanding characteristic of Australian poultry keeping is its utility, and this aspect has been greatly encouraged by the important egg-laying tests conducted under the supervision of the State Governments. Highly qualified experts control the Government poultry stations and carry out useful experiments in feeding, incubation, and the investigation of diseases. Lectures are given in country centres and the larger farms are visited for the purpose of giving advice, designs are furnished for yards and houses, and the work of constructing the farms is under inspection. At the shipping centres the Government provide cold storage for eggs and table poultry, and in every way the authorities are encouraging the development of the industry. It should, however, be noted that there is a movement to proceed further on the lines of co-operation, rather than of increased State assistance, but although this is preferable the Government must be credited with giving the impetus.

The chief breeds kept in the Commonwealth are the Leghorn, the Wyandotte and the Orpington, as well as Minorcas, Langshans, Indian game and Old English game. Of the first named the white variety predominates, in Wyandottes the silvers and whites are the most popular, whilst black and buff Orpingtons are about equal in popularity. Ducks are being increasingly stocked, and some strains of Indian Runners have put up astonishing records, but



the farmers do not give much attention to the breeding of geese.

#### CANADA.

In Canada also the industry receives a considerable measure of Government support; the opportunities are great, but development has scarcely commenced relative to the very wide scope. Since the beginning of the century the Canadians have been large importers of eggs and poultry, the provinces west of Winnipeg drawing considerable supplies from across the American border. In British Columbia there has been some advance, but there is room for big developments. In Southern Alberta there is plenty of scope, and in Calgary the Government maintain a co-operative station for the despatch of produce to western centres of consumption. Production is energetically promoted by the Ontario Department of Agriculture, and in the south of Ontario the natural conditions are very favorable and the transport facilities place the producers within a few hours of great centres of population. Co-operative methods are now receiving a great deal of attention both in British Columbia and Ontario.

Professor W. R. Graham has stated that much more interest is being taken generally in the table poultry industry and the egg supply. The food value of the egg is better understood and consumers are increasing their demands for quality as well as quantity, but although there is a big opportunity for a fully-organised egg industry, improved methods are required in Canada. The table poultry branch is profitable, the demand for good birds being much in excess of the supply, and fattening is being undertaken by some of the wholesale dealers in the large cities. In several cases large fattening establishments have been planned, with a profitable weekly output of the birds previously sent to market in a lean condition. It is a significant fact that the dealers find it profitable when they buy all the raw materials, and pay high city rentals. It has, indeed, been stated in a departmental publication that there is from three to seven cents per pound difference in the price paid for fattened fowls, from that paid for birds taken off the fields. This is a difference of from fifteen to thirty-two cents on a five pound bird.

Passing from east to west, favorable conditions are found in British Columbia, where there are great advantages in the way of markets east of the Rocky Mountains and in the coast cities, as well as in the industrial camps. The value of imported eggs and poultry in a recent year amounted to 2,467,715 dols. It is, moreover, stated on excellent authority that the supply locally produced cannot overtake the

demand for years to come. In one city, instanced by Mr. J. R. Terry, the Provincial Poultry Instructor, the average weekly imports are 50,000 eggs, and the local supply not more than 5,000. Although there has been a considerable rise in average values, and the province enjoys great advantages of climate, British Columbia imports largely from North America. It is an incontrovertible fact that poultry production in its several branches can be carried on successfully in nearly every part of the province, fowls, ducks, and geese doing especially well in the coast districts and turkeys thriving on the uplands. Here again and in Vancouver Island there is a promising development of chicken fattening, but although several establishments have been opened (and it is only a few years ago that I was instrumental in sending out the first skilled fattener from Sussex) the demand is in excess of the supply. In Vancouver Island, which possesses great natural advantages, high prices are expected to continue, and the prospects of industrial development suggest the probability of the demand keeping in advance of local supplies.

#### SOUTH AFRICA.

That the large profits made in the handling of imports could be transferred to local producers were the business of egg production systematically pursued, is the opinion of those who are qualified to speak from a knowledge of South African conditions. The authorities are showing a disposition to encourage production and to promote the co-operative principle. Diseases and parasites have, however, considerably hindered profitable production in the past, but a better knowledge of the conditions and requirements has shown that these difficulties may be overcome and are less serious than was supposed, and there is no doubt that much of the failure in the past has been due to ignorance and bad management.

In the Cape Province poultry farming in conjunction with general agriculture may be made profitable, but it is advisable to keep the fowls in small flocks on lands that are not too elevated. In the Transvaal poultry-keeping is increasing, and is successful as an adjunct to farming in Potchefstroom, Pretoria and some other districts. In the Orange Free State the Union officials say that there is an opening for poultry farming and market gardening, for which purpose large farmers are willing to allow responsible persons to settle on their farms near a spring or stream, and utilise a few acres on a system of half profits. Both eggs and fowls command high prices throughout the Province, but great care and attention are necessary on account of the liability to epidemics.





General View of the Competition Pens at the Roseworthy College, South Australia. [Copyright.]

## THE POULTRY INDUSTRY IN SOUTH AUSTRALIA.

BY D. F. LAURIE (Poultry Expert of South Australia.)

**F**ROM the earliest days of the founding of this State, poultry keeping has formed a by no means inconsiderable branch of rural industries. It was soon found that the equable climate and general conditions were most favourable to all breeds and varieties of domestic poultry. Various importations of different breeds were made from time to time until in due course the newest breeds and varieties evolved in other countries were soon represented here. The fancier was primarily responsible for the introduction of the various breeds and very soon poultry societies and shows were organised on English lines.

At the present time there is one Metropolitan Society in addition to which the Royal Agricultural and Horticultural Society does much to encourage the poultry fanciers and provides numerous classes at its shows. In the country districts are numerous poultry societies and also agricultural societies which provide classes for poultry at their annual shows. Specialist clubs attend more particularly to the welfare of several of the prominent breeds.

The poultry fanciers as a rule are not large breeders and few breed more than two hundred chickens in a year. Farmers throughout the State keep flocks varying in numbers from one to five hundred.

The utility breeders collectively are becoming an important factor in this State and many of them breed from one to five thousand or more chickens

in a season. At the present time there is a general move in the direction of larger plants and several are in operation which will shortly provide for several thousand layers and the production annually of many thousands of chickens. Egg production is receiving more attention than flesh production, as the general opinion is that the former is the more certain and also the more profitable branch.

Among the utility breeders for egg production the White Leghorn (Australian type) is the most popular. There are a few who breed Minorcas, Brown Leghorns and laying strains of Orpingtons, Langshans and Wyandottes. The all-round breeds such as Orpingtons and Wyandottes, Langshans and Plymouth Rocks are bred in fair numbers and there is every evidence that there will shortly be a great revival in these, or some of the all-round breeds.

### Imports.

No poultry or eggs for human consumption are imported into this State. Poultry breeders import on the average about a thousand head of various breeds from the other States and overseas for breeding purposes. They also obtain from the other States annually a few hundred dozens of eggs for hatching.

### Exports.

Shipments of eggs in cold storage have been successfully sent to England. Each year some thousands of chickens and ducklings have also been



shipped to England where they realised excellent prices. At the present time the great prosperity and rapidly increasing population of the Australian States results in excellent markets for all our available surplus. Increased prosperity and large demand have resulted in very materially improved prices so that the prospects of the oversea trade at present are not so enticing as they were. The annual value of eggs and poultry sent to the other Australian States is over £150,000 and the annual value of the poultry products of this State is £750,000. While the growth of the industry has been satisfactory as regards quantity the increased value is largely due to the higher prices obtained for the products. Large numbers of high class stock are sent to the adjoining States, New Zealand, South Africa, America, India and other parts.

### Prospects of the Industry.

There is no branch of rural activity which can offer to the producers of this State a more satisfactory prospect as regards markets. Not only are the Interstate markets satisfactory and likely to continue, but in addition the general shortage in the World's supplies of eggs and table poultry afford markets in England and on the Continent which will be available for profitable exploitation in the near future.

Our climatic conditions and the variety of suitable poultry foods available at moderate prices tend to make this industry especially suited to our State. There is room for unlimited expansion in all branches, and with the adoption of improved strains of commercial breeds together with superior methods of housing and feeding the progress will be rapid and solid.

### Government Assistance.

Seventeen years ago the Government of the day realized the possibilities of the industry. An experienced breeder and expert was appointed to lecture in the country districts and to write pamphlets and articles and to take steps to promote the breeding of poultry on commercial lines. Grants of money were made to various poultry and agricultural societies to provide prizes to encourage the breeding of certain specified breeds of poultry.

Exhibits of an instructive nature were organised, and staged at the metropolitan and the chief country agricultural shows. These exhibits demonstrated the best methods of packing eggs and poultry for market. Principal foods with their uses and feeding values were shown together with a mass of valuable information in statistical form easily understood. In connection with the export trade to England the State made cash advances on both eggs and poultry shipped in addition to undertaking the grading, packing and shipping of eggs and the killing, preparation, grading and packing of table poultry, also the sale in England.

### Publications.

Through the Departmental Journal agricultural

breeders are supplied each month with information contained in seasonable notes, general and special articles. Much time is given to original research on diseases and parasitism and the results are published in the Journal and in Bulletin form. A "Poultry Manual" (now in the third edition) is on sale at a nominal price. All other publications including an extensive Annual Report and Bulletin on the Egg Laying Competitions are distributed gratis.

### Poultry Experiment Station.

Until recently there were three Poultry Stations, one at Roseworthy on the Agricultural College grounds, one at Murray Bridge, and one at Kybybolite in the South-east part of the State. It was deemed desirable for many reasons to concentrate all work at one centre, and a new site was chosen at Parafield near Salisbury. Parafield was formerly a wheat breeding station and consists of 100 acres of first class wheat land, but rather heavy for poultry. The distance from Adelaide is only 11 miles by rail and 10 miles by road. Here will be assembled, with many additions, the dismantled poultry stations removed from the old sites. The accommodation now in course of provision will include a block of 160 pens for Laying Competitions. Yards and houses to accommodate 5,000 laying hens and 150 pens of breeding stock with chicken rearing yards to accommodate 10,000 to 12,000 chickens. There are two incubator rooms fitted with Cyphers Hot Air machines of 4000 egg capacity. Two brooder houses each 100 feet long are provided and the brooders and incubators are heated by an Air Gas (Gasoline) plant which will save labour and obviate many disabilities. Food stores and distributing houses, workshops, stables, etc., are also in course of erection. Water is laid on to all buildings and pens. The whole of the land will be under cultivation and considerable areas of lucerne and other fodder crops will be grown under irrigation.

In addition to the Laying Competition it is intended to organise Single Testing Competitions. Each competitor will enter six pullets, each of which will be confined in a small house and run; this is a more accurate and scientific method than trapnesting. Food tests will be carried out and many problems connected with incubation, breeding, etc., will be dealt with. It is intended to accommodate laying hens to provide sufficient revenue to make the Station self supporting.

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### Where is the evidence ?

An American contemporary says: "It is claimed that a single comb fowl fattens best. An English authority says that he has found that a single comb fowl always grow fatter and plumper than any others." What say our fatteners?



## CANADIAN WAR ON DIRTY EGGS.

By WALTER JAMES BROWN, Aylmer (West), Ontario, Canada.



HE people of Canada are rapidly developing an intense interest in egg production. During the month of June eggs are usually cheaper than in any other month in the year, but this year such is not the case. The war on dirty eggs which is being waged with considerable vigour has stimulated prices in all parts of Canada.

It does not seem necessary any longer to argue with the people on the land as to the wisdom of keeping poultry, or as to the profitableness of laying hens. There are many farms, however, which are still without proper poultry houses; but this defect is being rapidly removed. It is a pleasure to note the number and kind of poultry

trade seems to be guilty also of gross neglect, carelessness, and sometimes dishonesty, in transferring the eggs from the producer to the consumer. There is without a doubt a very general and great lack of appreciation of the perishable nature of an egg on the part of all the people concerned. These conditions tend in the aggregate to bring about a loss to the Canadian trade of several million dollars annually. While every one suffers more or less from this loss the major portion of the burden rests on the shoulders of the producers.

The stale, dirty and poor quality eggs that encumber the egg trade of this country are not the result of good management. The following extract from bulletin No. 16 of the Dominion Department



ON KOKSILAH POULTRY RANCH, VANCOUVER.

[Copyright.]

Brooder house in which 500 pullets of the same age were raised together. Some of them appear in the foreground.

houses that are being erected throughout the farming districts, and the care and intelligence that the people are manifesting in the breeding, feeding and management of their flocks; but unfortunately there are still thousands of eggs marketed which are a disgrace to the producers. Of course the whole blame for the loss in handling eggs from the farms of the country ought not to be charged to the farmers or their families. The egg

of Agriculture describes very accurately the usual method of handling eggs:

"Eggs under average conditions take a very circuitous course in reaching the consumer. Someone on the farm gathers the eggs whenever convenient, sometimes once a day, sometimes two or three times a week. They are carried to the house and held until such time as is convenient to take them to market. Then if the number available seems small, a hasty search by the children will



usually reveal some hidden nests, the contents of which are added to those in the basket without question as to their condition or state of incubation.

"These eggs are for the most part traded for merchandise at the country store, and there, as a rule, their quality does not improve since they are often held for varying lengths of time, and stored in questionable places. The egg buyer receives them next, and, if working for the big packing firms, he hurries them on with all possible speed. If working for himself he is apt to hold them particularly on a rising market. From observation one might infer that the common carriers, the railways and the express companies, are at times rather too prone to forget that the egg is perishable and the shell fragile, if one is to judge by their frequent lack of care in handling and in leaving them exposed to extreme heat on station platforms and in hot express cars.

"The average retailer or city grocer can, and should, improve his methods considerably. It is business to advertise his goods, but he seems to forget that while eggs will not melt and run away like butter, or readily sour like milk or cream, they are nevertheless perishable. Many a grocer has lost good customers through unduly exposing his eggs behind a plate glass window, in a heated store, or by leaving them for a period of days close to the store, a register, or some other source of heat."

During the hot weather after the breeding season the cocks should be removed from the hens, but the prejudice against this practice clings to the rural poultry keeper with great tenacity. In too many instances the hens are allowed to lay their eggs anywhere about the farm buildings, or in the orchards or yards, and in consequence the daily or weekly hunt for eggs brings into the basket scores of dirty ones of uncertain age and questionable quality. Sometimes many hens use the one nest, and the germs are started before the eggs are gathered. It is manifest from the foregoing that the conditions that help to produce bad or poor quality eggs are numerous, but they can be overcome when intelligence is exercised on the part of the poultry keeper.

The losses to the egg trade resulting from the various lines of mismanagement often aggregate twenty per cent or more. These losses frequently reach appalling proportions and seriously affect the prices paid to producers. For years produce merchants have had to employ many people to candle all the eggs they purchased; but they have bought all the eggs offered. The losses they suffered and the cost of candling have been charged against the prices paid from week to week. This policy has had no direct effect so far in securing eggs of better quality. The business has now grown to such a flourishing state that the produce merchants feel justified in refusing to purchase eggs of questionable quality. In some of the states in the American Union it is a criminal offence to offer for sale eggs that are unfit for food. The same standard of legislation in this particular regard does not prevail in Canada, but it is hoped to attain the same ends by standardising the methods of buying, and by refusing to purchase eggs that are bad.

The war on dirty and bad eggs has therefore started throughout the length and breadth of Canada. The merchants of Montreal and the cities of the Canadian west fixed the second of June as the date on which they began to purchase eggs on the "loss off" basis, and to pay nothing for bad eggs. The new grades adopted are three, and are designated *new laid* eggs, which are sound, full, sweet, and not more than five days old; *firsts*—eggs which are sound and sweet, but have a limited shrinkage; *seconds*—eggs of inferior quality, but not bad. The case count system will now disappear. Hereafter eggs will be paid for according to size and quality.

The following story is going the rounds of the Canadian Press—"In the spring of 1911 a certain farmer tried to build up a private egg trade and as a means to this end made a practice of stamping the date and farm name on every egg that he sold. What he did not sell to private customers were sold to produce dealers, who in turn sold them to cold storage people. During the first week of March of the present year a grocer in a town where this egg producer lives received from a storage warehouse some eggs, and among these were some stamped eggs from the aforesaid egg producer which bore the date of 1911. One can imagine what the dealer was up against when he undertook to sell these eggs. They were put up on the farm in 1911, sent to a distant warehouse to be held in cold storage, and then shipped back two years later to be sold near where they were laid."

It is now a matter for congratulation that the produce merchants, cold storage men, and egg dealers generally throughout Canada are endeavouring to persuade the farmers to supply them with only the best quality of eggs, and they are consistent in their determination not to buy any eggs which do not measure up to the standards which they have fixed for their guidance. Since the egg dealers have decided not to purchase dirty or bad eggs the prices have stiffened materially. In a few weeks it is hoped that the people will understand what is required and will respond by offering for sale eggs of superior quality. During the past winter which was more or less open and favourable to egg production, the Canadian market was fairly well supplied from local sources, and never at any time indicated extreme scarcity; but at the present moment, in the month of June, owing to the new classification, the wholesale prices are higher than they were in January. If the Canadian people can be induced to systematise the poultry business and continue to expand their flocks, it is certain that in a few years the Canadian hen will be restored to her old-time pre-eminence and Canada will be exporting large quantities of choice eggs instead of importing thousands of dozens of questionable eggs from far-off China. The people are so interested in the poultry industry and are going into it so extensively in all parts of the Dominion that it seems certain that they will continue to improve the quality of their stock, the methods of housing, and their systems of feeding and management.



## EGGS AND POULTRY IN SOUTH AFRICA.

BY THE TRADES COMMISSIONER OF SOUTH AFRICA.

I have given considerable attention to the question of exporting eggs from South Africa; and have already had occasion to report upon the matter. That report was published, *in extenso*, in the *Union Agricultural Journal* for November, 1912; but it will probably be well if the matter is again dealt with.

In dealing with the subject, I pointed out that whilst South Africa imports some 16,000,000 eggs per annum, valued at approximately £58,000, the cardinal factor governing the reason for such importation is that the eggs arrive during the time of the year when they are not produced cheaply in South Africa, viz., from February to August, inclusive. The imports from September to January, inclusive, are negligible. It is reasonable to assume that South Africa can produce eggs, cheaply, from September to January; and as, at that period of the year, they are scarce and dear in England, an export trade, profitable to the shippers, may fairly be considered as a practical proposition. In other words, I suggest that during the season when eggs can be readily produced in the Union, their production should be in such quantities as to make it possible to export.

In making this bold suggestion, I admit that there are several difficulties in the way; and I do not suppose that these difficulties can be overcome without some trouble and patience, the exercise of skill, and a due appreciation of the problems to be faced. Still, I consider that these difficulties are not insuperable.

In considering the question of South Africa, four main points present themselves, viz.:—

- (a) the facilities for, and the cost of, collection: and the effect of these points on the finding of export markets;
- (b) the cost of production; cost of shipment; and prices on the English markets;
- (c) the quantity available for export; and the uniformity of quality;
- (d) the correct methods of packing, etc.

The question of collection is the greatest problem which has to be faced. Indeed, if and when this problem is solved, the creation of an export trade in eggs and poultry will then be accomplished.

The difficulties surrounding an efficient system of collection are chiefly:—the large extent of country: the distances between the producers: want of transport facilities; and a high temperature—which materially shortens the period between the time of production and the time when the article ceases to be marketable. These difficulties are admittedly great; but they can be overcome.

A further feature which militates against South Africa in the production of perishable products is the want of large local markets. Up to recent years South African agriculturalists, with the exception of the small number who live in the

neighbourhood of the larger towns, have had to confine their efforts to the production of non-perishable products—such, for instance, as wool, mohair, and ostrich feathers. If the production of eggs can be so increased in South Africa—during the period of the year when they are scarce in Europe—as to induce the establishment of an export trade, it should follow that collection would then be economically possible since the quantities required by the Overseas markets should practically overcome the difficulties of collection, which are only economically impossible when small quantities are available.

As the result of representations made by Mr. I. Gundle (of the firm of I. Gundelfinger)—a London merchant with a considerable South African connexion, and who is himself a large exporter of eggs to South Africa—the Union-Castle Steamship Company have agreed that for, say, half-a-dozen trial shipments of eggs from South African Ports, they will carry them in special stowage below deck at 25s. per ton measurement of 40 cubic feet; and the Company have already sent instructions to this effect to their South African agents. I gather that this rate has only been agreed upon for *trial* shipments; but no doubt, if these prove satisfactory, the Shipping Companies will, in their own interests, as also in the interests of South Africa, agree to reasonable rates for the conveyance of this class of produce.

As a result of my conversations with people in the trade, it has been strongly recommended to me that trial shipments from South Africa should be made in order that the eggs may commence to arrive in London at the *beginning of November*. If such shipments are made, I should be glad of timely advice in order that I may follow up the matter and report fully thereon.

It is interesting to note that, in 1911, twenty-two hundreds of eggs, total value £13, were shipped from the Cape Province. I have not been able to trace at what period of the year these eggs were sent over from South Africa. The price realised on the English market was 11s. 10d. per great hundred.

Much of what is said in this report, in regard to the problems associated with the collection of eggs, applies equally to the questions of fattening, packing and freezing poultry; and I have no doubt that the export of poultry will also develop into a profitable industry if a satisfactory system of co-operation can be applied.

I should like to reply in anticipation to an objection which may possibly be raised by house-keepers in South Africa. It will be said that eggs and poultry are sufficiently expensive in South Africa without my recommending an export trade. May I say that, in my opinion, eggs and poultry will never be cheap in South Africa until there is an export trade in these commodities.



## A STRICKEN POULTRY INDUSTRY.

Report upon an outbreak of disease among Chickens in the Malines District of Belgium.

By EDWARD BROWN, F.L.S.

### MALINES TABLE POULTRY.



READERS of my report on the poultry industry in Belgium, published three and a half years ago, will remember that considerable space was devoted to the remarkable developments (in the production of what are known as *Poulets de Bruxelles*) which had taken place in East Flanders. It was shown that within the Campine section of the Province of Antwerp the rearing of Malines fowls has been an important industry for a long period, and that the fattening of these birds was carried out in the district of which Malines, Puers, Termonde and Alost form the border line, including the small towns or villages of Londerzeel, Burgenhont, Lebbeke, Opwyck and Merchtem. It was customary for the birds to be brought to the markets at Malines and Londerzeel, where they were bought by the fatteners; in fact, very little rearing formerly took place within East Flanders itself.

### INCREASED PRODUCTION.

As a result of greatly increased demand for these large fowls in Belgium itself, and to an extensive export trade opened up with Germany, where the sale has advanced very rapidly, a great change has taken place. Within the district named are at least fifty or sixty fatteners. As an example of what is here indicated the report stated that "ten years ago not more than 500 birds were annually reared in the commune of Londerzeel, which embraces 1,800 hectares, and has a population of 2,000. Now it is not unusual to find 50,000 chickens at one time. Everyone breeds poultry, farmers and those with even a small plot of land, but the number in each individual case is generally small." It was estimated by Mr. Joseph Plaskie "that 200 breeders of first quality birds in this neighbourhood produce 10,000 chickens annually, and that 300 smaller occupiers rear 5,000. A little further afield the farmers individually rear larger numbers. In some cases people with not more than six acres of land (about one-seventh of an acre) rear 1,000 chickens every year." It was also stated "that great prosperity has followed the extension of poultry breeding and fattening all over the district, in which every section of the community has shared, and some people have made modest competencies out of it."

### A FORECAST.

Additional information as to the methods

adopted can be obtained from the report itself. At the time of my visits to that district in 1909 everything appeared *couleur de rose*. Money was being made to an extent unknown before. What impressed me, however, was the fact that the balance of nature was upset, and that the methods which had made Belgian poultry keeping so successful in other parts of the country, and formerly in this section, were no longer regarded. Hence paragraph No. 49 (page 47) of the report read as follows:

A NOTE OF WARNING.—Experience in many countries has abundantly proved that with greater numbers the risks of loss by disease becomes a serious factor. As already explained (par. 15), when the animal life is in excess of the capacity of the soil to utilize the manure produced, sooner or later disease will break out. In some of the places visited I felt that hygienic conditions were absent, equally on farms and small holdings; at the former by keeping the birds around the the homestead in such numbers instead of distributing over the land, at the latter by overcrowding in small runs. In a few instances the ground is only utilised for one season, and afterwards cultivated, other plots being used in succeeding years. But this method will have to be systematized to a greater extent than is now the case. A few months ago a sharp lesson was received by a serious outbreak of diphtheritis in the district, which occasioned great loss, due entirely to overcrowding and the neglect of hygienic principles, which, it may be hoped, will emphasize the importance of this question. I am also certain that the present system of breeding from young pullets to secure early eggs, hatched artificially, will lead to reduced vigour of the stock, and that, whilst for birds to be killed early such a system is necessary, it is essential that those which are intended as breeders should be hatched and reared naturally and not forced. To that all-important point at present a very small amount of attention has been given.

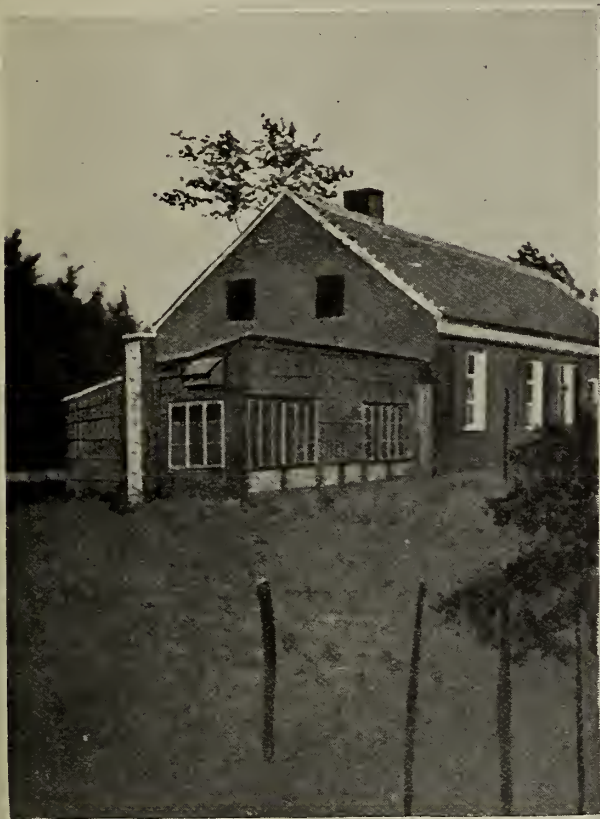
It is evident that my caution against the systems in vogue was either ignored, or thought to be unduly pessimistic, or perhaps the warning came too late.

### ULTRA-INTENSIVENESS.

As already stated, in the Spring of 1909 there had been a sharp outbreak of diphtheritis, which had occasioned heavy loss, but so far as



I have been able to learn no repetition has taken place. Hence the cause was regarded as due to external influences, not to any fault in the system itself. That this is intensive in the extreme is unquestionable, even to a greater extent than I had supposed, as will be seen below. Apart from all other questions it may be mentioned that the trade in eggs for hatching and young chicks has grown very largely in the interim. Great quantities of eggs are sold to those who, keeping no breeding stock, obtain



**A derelict glass-fronted Chicken House in Belgium.**

*(Copyright.)*

supplies of chickens in this way, and hatching plants have been established for the sale of three-day old chicks to such as have restricted their operations to rearing alone for sale later on to the fatteners. These methods, as is evident by experience, are in no sense objectionable in themselves, and can be adopted successfully, provided that in the first place the breeding stock from which eggs are obtained are capable of producing strong-germed, virile eggs, and that the methods of rearing and feeding, as well as the conditions under which old and young birds are kept, are conducive to health and vigour. The quotation already made shows that such was not the case in 1909, and recent observations confirm the view then taken.

This is one of the most striking examples of ultra-intensiveness in which even ordinary hygienic and breeding principles were ignored I have met with, and it deserves careful study on the part of all engaged in the development of the poultry industry.

#### WHAT HAS TAKEN PLACE.

Each year since my previous visit there has been an increased mortality among the young chickens, as compared with previous seasons. Two years ago, however, it began to be very serious, causing great concern and heavy pecuniary loss to those engaged in the business. This year has proved to be the climax, and it is not too much to describe the poultry industry within the area named as a stricken one. Only once before have I seen anything like it. In this connection we must remember that winter rearing is essential to meet market requirements, as well as in the ordinary period of the year. In fact, the season of production is very extended. Instead of seeing large numbers of chickens in various stages of growth as formerly, during a recent visit comparatively few were in evidence. On ground where previously I had found chicks almost everywhere, the numbers were very limited indeed. On some places that had carried big flocks not a single bird was to be seen. In not a few instances the rearers have been almost ruined. A case was mentioned of a farmer who had sold his cows and gone in for fowls entirely. He has practically lost everything he possessed. A multitude of others have been affected to a lesser degree, but nearly all have lost heavily, large and small men being equally sufferers. On one farm out of 8,000 chickens hatched, nearly 4,000 have died, and the number of eggs put down has been greatly decreased. In others the total bill of mortality has reached 80 per cent. of those hatched or purchased, and the loss of every bird in a hatch is by no means unknown. Although it is admitted that scores of thousands of chicks have died this season and that the supply of birds to fatteners from the Campine Country has been much reduced, it is stated that more have been bred in some parts of Flanders less affected than others, and, therefore, the supply has not fallen to the same extent.

#### GOVERNMENT INVESTIGATION.

Such a serious state of affairs, striking at the prosperity of an entire district, has led to an enquiry undertaken by the scientific staff of the Zoological Laboratories of the University of Louvain, at the request of the Belgian Minister of Agriculture. In this work Professor Frateur and two of his colleagues are engaged. I had the pleasure of an interview with that gentle-



man, who informed me that the investigation was not quite completed but he anticipated it would be finished very shortly, and promised an early copy of the report. I learnt, however, that the disease is caused by a parasite, thought to be related to that causing sleeping sickness



**A Brooder House on a large Belgian Poultry Plant.**

[Copyright.]

and malaria in man, but until the report is received this part of my enquiry must be reserved. One important fact is that, whilst the disease, whatever it may be, is most rampant in East Flanders, it has also spread into West Flanders, and to other breeds than the Coucon de Malines. At the same time it appears to be true that East Flanders has suffered most heavily, which was to be expected from the fact that there the industry on these special lines has been intensified to the greatest extent.

#### SPECIAL FEATURES.

There are several features of this outbreak which are peculiar. One is that older birds kept for breeding purposes appear to be totally unaffected. Those I saw were healthy in the extreme. And the same is true of such older chickens as had survived the infantile stage. Another is that one breeder informed me the loss among chicks from eggs which he had purchased from the Campine Country, where the birds in some cases have free runs, was greater than those from neighbouring farmers, although

the latter was sufficiently heavy to induce him largely to give up taking them. On the other hand a rearer living in West Flanders, writing in *Chasse et Pêche*, stated that the mortality among chickens from eggs he had purchased in Londerzeel (East Flanders) had been 80 per cent.; from a farm in West Flanders, 70 per cent.; and from those obtained in his own neighbourhood only 10 per cent. It was reported to me that even in what may be termed the infected areas some sources of supply appeared to be wholly free, as the chickens were raised without any difficulty whatever, and the loss was not more than ordinary. Experience of the kind named would suggest that the cause is not to be found in the immediate conditions prevailing where the chicks are being reared, which is confirmed by the fact that the loss was found to be as great whether the system of rearing was natural or artificial. A further statement has been made that eggs from infected localities were extraordinarily pale in the yolk. Here we have a variety of evidence which will require careful enquiry before any opinion can be expressed. That such cannot be ignored is apparent, even though we doubt the individual values.

#### SYMPTOMS.

As already stated, no sign of the disease or of tendencies thereto are apparent in the older birds, that is, the breeding stock. The same is true when the chicks are first hatched. The period of attack is from one to four weeks, after which time they appear to be able to resist the microbe or parasite whichever it may prove to be. The course is very rapid, and the chicks droop, lose flesh, and die within a few hours. As I did not see any birds at this stage it is impossible to describe the symptoms more fully, but that will doubtless be done by Professor Frateur in his report. It was stated, however, that in all cases there was severe diarrhoea, and that the discharge was white and chalky, suggesting, that the disease is similar to white diarrhoea which has decimated the poultry yards of America during the last few years, although this may be merely symptomatic, and not in itself an indication of one and the same disease. What presented itself to my mind, as will be shown later, is that the contributory causes are much the same in America and Belgium, namely, a combination of influences leading to degeneracy. How far that can be proved remains to be seen. Up to the present no treatment has proved efficacious, and very little attempt has been made in this direction. Death follows so soon after the first attack that nothing can be done. In fact, the nature of the disease has not yet been determined. Nor did I hear of more



than superficial examination into the hygienic conditions under which old and young birds are kept, though it was admitted that some of the farms from which eggs were obtained that gave the greatest degree of mortality when hatched are worst in this respect, certainly a very suggestive factor.

#### BREEDING FARMS.

Sixteen years ago when I visited the Campine country north of Malines, in company with the late Louis Van der Snickt and Mr. A. F. Hunter, of Boston, U.S.A., fowls and chickens alike were given full freedom, wandering freely among the trees which at that time covered a greater part of the district. Four years ago, as shown in the Belgian report, a great change was noted; the ground had been cleared and was being turned into market gardens as a result of enrichment of the soil by the poultry manure added to it for nearly a generation. That had led to greatly increased prosperity. I noticed, however, that in many places the birds no longer had freedom, but were kept within small yards, often none too clean, and in East Flanders on some of the farms visited in 1909 not only was the housing bad in the extreme, one of the farm buildings being usually occupied in this way, overcrowded and ill-ventilated at that, but, also, the numbers maintained were far too great to be kept around the homestead. Over the greater part of Belgium the balance between cultivation and poultry has been well sustained, at once explaining the great productiveness of the country in both directions. It is evident, however, in connection with this branch of the poultry industry that such has not continued where much of the breeding stock is concerned. Here we see one of the special dangers of intensiveness. The difference between animal and plant life is disregarded—a danger to which a thickly populated area is always liable. Belgium has a greater density of population than any other country in Europe. Heavy cropping tends to exhaust the soil, which can be remedied by added manures. On the other hand a large flock of fowls adds to the richness of the land by such manure, and tends to kill all growth. Thus in process of time it becomes highly impregnated with otherwise valuable elements which are, however, dangerous to the animals living on it.

#### IMMATURE STOCKS.

So far as I was able to learn on this and previous visits, the system of using yearling cockerels and pullets for breeding is almost universal. Where, as in the Malines trade, the hatching of winter chickens is necessary to success, that method must always be followed,

otherwise it would be impossible to obtain a sufficient supply of early eggs. That has to be done with Aylesbury Ducks and wherever non-seasonal hatching takes place. So long, however, as all the birds so produced are killed off, and older stock used for securing these young breeders, no harm is done. The dangers from this method appear to be greater with heavy bodied races such as the Malines, than those which are lighter and more active. When, as appears to be almost universally the case in the Campine and Flanders, the breeding stock are produced from eggs laid by these immature birds a little later in the season, at a time when



A typical Belgian rearing shed and run. [Copyright

they are becoming physically exhausted, the tendency to degeneracy must be extreme. The effect of such false methods may not be apparent in the first two or three years, but later on develops with an ever-accelerated force. I can come to no other conclusion than that breeding from pullets has seriously reduced the vitality of fowls in the district, which, whilst insufficient in itself to account for the heavy mortality recorded, has powerfully contributed to it by reducing the power of resistance, more especially in the chickens.

#### CONCENTRATION.

So long as the breeding stock was given full freedom, even though the housing conditions

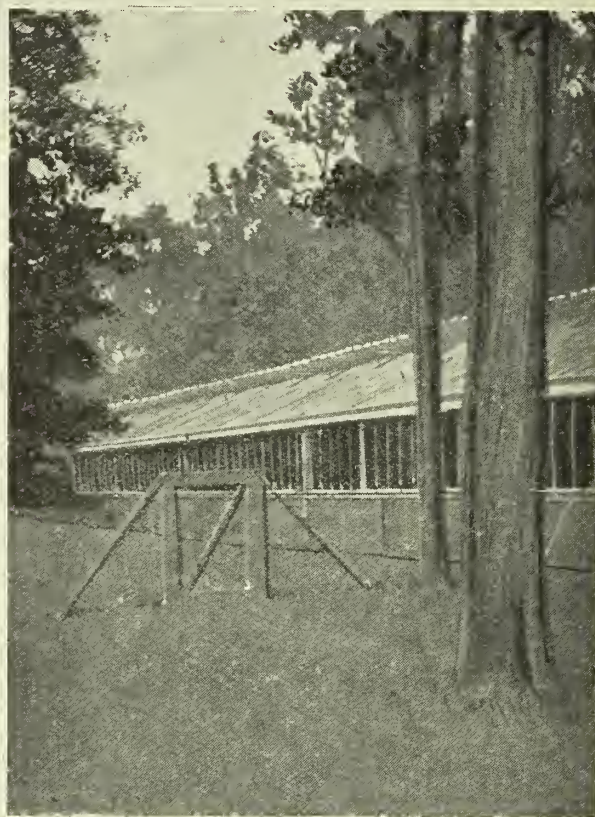


were by no means satisfactory, the health and vigour of adults and chickens were well maintained. I do not suggest that the ill effects of bad housing will not exert an influence after a time, but rather that such would be greatly minimised and retarded so long as the birds could wander at will during the day. It is true, as already stated, that the tendency to yarding has largely increased even in the Campine country, whilst a considerable proportion of those who have taken up the work in East Flanders have adopted the same method. All the increase which has taken place has been on intensive rather than extensive lines. Even upon farms additions to numbers of poultry kept have not been followed by distribution over the land. In a country where cultivation is carried to an extreme point, and crops are grown to the walls of almost every house, it may be difficult to plant out portable poultry houses on the fields. Under such conditions to crowd a larger number of birds around the homestead and into buildings with a much lower capacity, is bound, sooner or later, to exact a penalty. Such has certainly proved to be the case in this section of Belgium. The lesson may be severe, but it will be more than compensated if it leads to the adoption of more natural methods, and to a wider distribution of old and young birds alike.

#### HATCHING.

The use of incubators has advanced enormously during recent years. In fact it would have been impossible for the industry to have grown to the existing extent had these machines not been available. At one time Belgian peasants were very adverse to the use of incubators, and this is still the case in some parts of the country, but the logic of facts was too great for such prejudice to continue. In spite of the idea which still prevails that an incubator can never be equal to the mother hen, and which has much justification, in the Malines and Londerzeel districts, even the most ordinary precautions to minimise any such adverse influence have been neglected. How far this has contributed to the outbreak it is impossible to suggest. There are those who express the belief that artificial methods of hatching and rearing are mainly responsible. It is impossible to agree with that statement whilst acknowledging that machines are always second best. We find it necessary to investigate more deeply to discover the cause. Where eggs are produced for sale to the hatcheries, or young chicks are sold from these establishments to poultry-keepers for rearing, there is a danger that the importance of maintaining vigour is not realised to the fullest extent, more especially when the aim has been to obtain numbers of eggs and chickens. The huge demand for eggs both from hatching plants and private rearers, and also for

young chickens, has, only for a time let us hope, led to forcing and neglect of ordinary precautions in the directions indicated. It is a common mistake that numbers mean everything. The success achieved during the first few years was in itself misleading. As I have frequently pointed out, that which declares itself at once as a result of any bad method, is frequently of less danger than the unrevealed. What we have to guard against is the accumulation of adverse



**A long range glass-fronted Brooder House in Belgium.**  
*[Copyright.]*

influences over a series of years, for then the results are greater and more profound. How far in-breeding has been followed I have not obtained direct evidence, but that there is much was not denied. When an industry is restricted to an area of from four to five hundred square miles as is here the case, the risks of nearly all the birds being related are considerable, more especially when the conditions of soil, etc., are so equal. As I suggested to one large breeder, they should arrange with several farmers in the hilly Ardenne country to breed Malines, where the birds can have full liberty and live in a totally different environment, and draw from these their breeding stock from time to time. Probably such birds would not be equal in size to those produced on the plains of Antwerp and Flanders, but they would have a reserve of vigour the others have lost. *(To be continued.)*



## EDUCATIONAL AND EXPERIMENTAL WORK IN THE COLONIES.

### AUSTRALIA.

IN considering the development of any industry there are many things to be taken into account, and not the least of these is the question of local opportunity. Poultry products are raised for human consumption, and the demand for this form of food is dependent to a very great extent on the supply of other marketable products. With the exception of Western Australia and Tasmania meat is very cheap in all states of the Commonwealth, and this has undoubtedly been one reason for the comparatively slow growth of the poultry industry. Meat being cheaply reared is consumed to a large extent, and this tends to check the local consumption of eggs and poultry. Table birds secure but a small demand and special feeding for market is unknown at the present time. In course of time the public taste will be educated to appreciate the higher grade quality, but this will take many years to accomplish.

The Commonwealth is divided into six states, each having its own department of agriculture. Unfortunately there is no unity between them in experimental work, though information, in the form of bulletins, is disseminated from one to the other. This may be accounted for by the fact that the areas are so large, and the climatic conditions so different, what is suitable for one section may not be applicable to another.

#### New South Wales.

Educational work is not confined to lectures or visiting poultry keepers. We may, therefore, refer briefly to a method of encouragement that has been followed most successfully, namely, the organisation of laying competitions. This state was the first to adopt this method of drawing attention to the utility side of the poultry industry. The competitions are held at Hawkesbury College and the management is in the hands of a committee. To the *Sydney Daily Telegraph*, however, must be given the credit of initiating these tests. This question is being dealt with more fully in this issue of the POULTRY RECORD.

There is no state expert for this subject and very little educational work has been attempted, but as the opportunities for poultry raising are very great it is only a question of time until one will be appointed.

The committee referred to above is the only organisation that has devoted any time to experimental work. Apart from the laying competitions various makes of incubators have been tested, and trials made to determine the cost of flesh production and the market value of table birds.

New South Wales is an importing state, and considering the large centres of population it

contains, there is considerable scope for the successful working of this branch of agriculture by the farming community. Rural education is needed to bring this about, but it has not yet been attempted.

#### Victoria.

During the last few years serious attention has been given to poultry in this state. Mr. Hawkins, the one-time conductor of farmers' classes, is now expert for the state, and as he is working under sympathetic superiors there is every possibility that great strides will be made in the future.

The only experimental work that has been done is with regard to laying capacity and the method adopted by the state, various newspapers and private persons, is that of laying competitions. These have been held with marked success.

Victoria appears to be the only state that has seriously endeavoured to develop the production of table poultry. The several consignments of frozen poultry sent to over-sea markets have given encouraging results.

#### Queensland.

The industry in this state is now receiving attention. An expert visits the various agricultural shows and is available for advice on poultry matters. At the Agricultural College at Gatton the poultry branch is an important adjunct, and it is confidently expected that rapid development will be noticeable in the near future. The laying competitions held there, however, have not secured the desired interest and patronage. The opportunities are considerable, but the full advantage of promoting this industry has not yet been grasped.

#### Western Australia.

This is an important state, and although attempts have been made in the past to advance the work of poultry raising they have been discontinued owing to lack of interest on the part of the farming classes.

#### South Australia.

The Government and Agricultural Department have spent more to develop the poultry industry than any other state in the Commonwealth. A few years ago South Australia was looked upon as the centre of the industry and at that time had a considerable export trade.

As far back as 1895 Mr. D. F. Laurie was appointed poultry expert and the record of achievement is so far very promising. There are now three government poultry experiment stations, all of which are well equipped. The work of the expert can be best summarised as follows:—

LECTURES: These are delivered at various country centres, at the Agricultural College, Roseworthy, and at the School of Mines, Adelaide.



**ADVICE VISITS:** These are made either by Mr. Laurie himself or by one of his staff of experts. Advice is given on all matters relative to the industry, including disease, practical demonstrations and the laying out of poultry plants. With reference to the question of disease it may be mentioned that certain diseases, such as ticks, are subject to government control and are investigated on the spot. This has had very beneficial results.

**SHOWS AND DEMONSTRATIONS:** At the principal country shows exhibits are staged and demonstrations given in the grading and packing of eggs, and trussing poultry. Samples of food and

**PUBLICATIONS:** Several thousand copies of the annual report, and other bulletins, are distributed every year.

**THE AGRICULTURAL BUREAU:** This organisation is an important feature of the department of agriculture. Numerous branch meetings are held in country centres, and lectures are given by the experts of the department. The effect has been great in arousing interest on the subject of poultry-keeping.

#### Tasmania.

The conditions found in Tasmania are somewhat different from those in the other states. There are



**A general view of Mr. Tom's poultry farm at Koonoga, South Australia.**

*[Copyright.]*

pamphlets are distributed gratis to all interested persons.

**CORRESPONDENCE:** A large mail is dealt with every day, letters seeking advice coming from all parts of the state, from other states and even from over-sea.

The government produce department undertakes the sale of eggs and poultry. Shipments have been sent to London and the returns have been satisfactory. The outlook for markets in future years is very bright.

**EXPERIMENTAL WORK:** This comprises laying competitions, tests of foods, and methods of feeding, incubation trials; various diseases and insect pests have been the subject of much research.

no large centres of population, and practically everyone has an opportunity of keeping a few birds. Meat is dearer, and, therefore, poultry products have a greater value in the eyes of the consumer.

Organised effort was begun some years ago when Mr. R. J. Terry was appointed expert. At the time of his appointment the industry was in a very bad way, for the farmers' fowls were generally small and unproductive, and tuberculosis was very prevalent. Things have changed considerably in recent years, and the distribution of stock birds and settings of eggs from the government poultry farm have had a good effect. To-day there are very few farms which have not a flock of pure bred or



graded hens mated with a pure bred male, and tuberculosis is now very rare.

There is no institution offering instruction in the industry at present, but a state farm is proposed where this subject will form one part of the recognised curriculum.

The laying competitions, begun privately by Mr. Terry, have resulted in increased egg production. For the last two years eggs have been exported to Victoria and New South Wales and large quantities have been sold to mail boats as ships' stores.

What experimental work has been done has been financed by Mr. Terry himself, and it includes tests in incubation, keeping qualities of unfertile against fertile eggs, feeding for egg production, the value of skim milk versus animal food, and the fat percentage of eggs from different breeds.

### NEW ZEALAND.

Here are five government experiment stations each in charge of an assistant expert, the chief expert supervising the work.

Lectures delivered throughout the country districts are well attended.

The Agricultural College at Canterbury devotes very little attention to the subject of poultry keeping and there is no record of any experimental work having been undertaken.

### CANADA.

The Agricultural Colleges of the Dominion of Canada are:—

The Ontario Agricultural College,  
Guelph, Ontario.

The Macdonald College,  
St. Anne de Bellevue, Quebec.

The School of Agriculture,  
Truro, Nova Scotia.

The Manitoba Agricultural College,  
Winnipeg.

The Faculty of Agriculture,  
University of Saskatchewan, Saskatoon.

Of these, as previously described in the ILLUSTRATED POULTRY RECORD, the two first named have devoted much attention to poultry, and they possess well equipped plants on the college farms. The School of Agriculture at Truro is now following similar lines, and we anticipate that the two western colleges will meet the same need in their respective areas, as the demand on the part of the rural community increases.

It is evident that the Dominion and Provincial authorities have both realised the importance of investigational work. This, hitherto, has been carried out at the Central Experimental Station, Ottawa, under Prof. A. C. Gilbert, and at Guelph by Prof. W. R. Graham.

In addition to the agricultural college mentioned above, there are a number of agricultural experi-

ment stations, but little work has as yet been done towards the elucidation of poultry problems.

### SOUTH AFRICA.

In the various parts of the Union of South Africa are several experimental farms, as distinct from Agricultural Colleges, although at some of these pupils or apprentices are received. The charges for tuition, board, lodging and laundry are very low, being about £50 per annum.

#### Transvaal.

In 1903 the Transvaal Government appointed Mr. R. Bourlay as instructor in poultry-keeping. His duty was to travel through the colony giving lectures, visiting farms and generally assisting farmers, etc., with advice.

In connexion with the School of Agriculture at Potchefstroom there is a poultry plant under the direction of Mr. Bourlay. This was the pioneer station in South Africa and it has exerted a wide influence throughout the Union.

Students are received for special instruction in poultry and in addition this subject forms part of the general agricultural course. The great majority of the students take a great interest in the work, and as they are the farmers of the morrow it has the effect of impressing on the rising generation the importance of poultry keeping as an adjunct to general farming.

The Minister of Agriculture and the acting Secretary for Agriculture fully realise the importance of this work as is instanced by the ready support accorded to the new movements which tend towards the advancement of the industry.

#### Cape Colony.

The history of the poultry industry in this colony dates only from 1911 when the Government recognised it as an important branch of agriculture. At the Agricultural College, Elsenberg, instruction is given on the subject by a member of the staff, but no special expert has as yet been appointed.

The expert of the colony, Mr. Arthur Little, is stationed at the College at Grootfontein, where full courses of lectures and demonstrations are given. A poultry plant has been erected, and in addition to the teaching courses, special attention is to be devoted to experimental and research work.

Although Mr. Little has only been a short time in South Africa he has already won for himself a leading place in connexion with his subject, and the results of his work will undoubtedly place the industry on a firm basis. The opportunities are very great, and given time, the poultry industry in Cape Colony should become as extensive and as successful as that in any country throughout the world.



## EGG FARMS ON VANCOUVER ISLAND.

BY E. B. BAKER.

TO those who lack faith in poultry farming as an industrial proposition, a visit to one of the older-established chicken farms on Vancouver Island would come as a revelation of the possibilities of the business, not only in British Columbia, but in any part of the world.

I believe that as a matter of fact, poultry farming, as a means of subsistence, has attained a higher degree of perfection in British Columbia than in any other Country.

The Koksilah Valley, of which the city of Duncan is the centre, is the principal egg-producing centre on Vancouver Island. The natural

establishments afford the best examples of how success may be attained in this line of business, and the up-to-date methods employed may serve as models for similar institutions in any part of the world.

Incubating begins at the end of February or early in March and continues until the end of May. Up to the present, hatching has been done by individual poultrymen with incubators of ordinary size, 240 to 400 eggs, but the spring of 1913 saw the inauguration of custom hatching by means of a Mammoth incubator, with a capacity of from 3,000 to 6,000 eggs.



**An open-fronted laying shed on the Koksilah poultry ranch, Vancouver.**

*[Copyright.]*

conditions of soil and climate no less than the enterprise of settlers, have contributed to the building up of an industry which bids fair to eclipse the fame of even the noted Petaluma district in California.

Well drained, rather gravelly soil, bright sunshine, and abundance of trees providing easily available shade and efficient protection from the wind, are some of the natural advantages. A steadily increasing demand and a wide market for the poultryman's produce, are apparently assured for many years to come.

The accompanying photographs are views of Mr. E. H. Sook's poultry ranch at Koksilah, and Mr. L. F. Solly's farm at Westholme. These two

Very large egg-producers are capable of utilising a Mammoth incubator for their own purposes alone, but for the small farmer and beginner, this custom hatching will be of great service in reducing the cost and eliminating the labour of incubating on a small scale.

The crucial period in the existence of a chicken is between the time it is hatched to the date, some eight weeks later, when, the brooding having been successfully carried out, the birds can be separated into flocks.

The whole question of brooding is so important that it will be worth while to examine Mr. Sook's system in detail.

The comparative merits of the room brooder and



of small brooder boxes have hardly been sufficiently tested to enable a definite pronouncement to be made in favour of one or the other.

Mr. Sook, who was the first to use a room-brooder on Vancouver Island, finds it in most respects more satisfactory than the small brooders, and those who have followed his example appear fully to share his view. Others, however, see certain objections to its use, although their prejudice does not appear to be grounded on personal experience.

It may, however, be stated as an axiom that successful rearing of birds depends less on any particular method of brooding than on the individual care and skill of the owner.

In the use of fireless brooders, that is when the chickens were taken straight from the incubator to brooder boxes not artificially heated, Mr. Sook has been quite successful only on a comparatively small scale; that is to say if only 200 to 300 pullets were being raised.

The labour and attention involved are of course enormous, but the method is cheap and simple.

Beyond this number then, Mr. Sook, and others who have had similar experience, unhesitatingly recommend the room-brooder as the only really business-like method for the large breeder.

The following is a detailed description of the brooder house shown in the first photo.

The size of the house is 26ft. by 14ft., the walls are about 4ft. 6ins., and should not be higher, in order that the heat of the room may be conserved as much as possible. The roof is quarter pitch, thus the height from the centre of the room to the peak of the roof is about 8ft., which gives ample space for the operator to move about and work without inconvenience.

The house is floored and is perfectly air-tight. The angles formed by floor and walls are subtended by sloping boards along the sides and at the corners, forming a bevel.

Single board walls are sufficient if covered with good roofing material.

The stove stands in the centre, the chimney goes straight through up the peak, and should be surmounted by a moveable bonnet in case of heavy winds. Over the stove is the radiator, a large sheet of metal (in shape a depressed cone) encircling the stove pipe. The radiator throws the heat from the stove downwards on to the floor. The stove burns engine distillate (a form of crude gasoline) supplied from a tank outside the house through a quarter-inch pipe. The stove is fitted with a valve burner, no wick being required.

By means of an automatic regulator or thermostat, the operator is enabled to ensure that the required temperature is maintained almost to a degree.

On each side of the house are two windows, near the floor level. These should be hinged at the bottom so that they open inwards. The house should have a Southern aspect (i.e. in the Northern Hemisphere). On the South side, two doors are

cut, about 6 to 8 inches high; the width of each door should be at least 14 inches.

The doors by which the operator enters are at the same end of the room as the outlet shaft referred to lower down; that is, the end from which the wind does not generally blow.

The doors are 3 or 4 feet apart, so that one of them remains closed while anyone is entering or leaving the room, and no draught can enter. While the chicks are small, ventilation is supplied by air-shafts only. On very cold nights, the room is kept absolutely air-tight.

The intake shaft is at that end of the house from which the prevailing wind blows. The outlet is at the opposite end. These shafts are of wood, dimensions 24ins. by 12ins., and are controlled by sliding shutters over the inside openings. The intake shaft enters the house at a height of 3ft. 6in. from the ground, being built up from near ground level.

The opening of the outlet is 2ft. from the floor, the shaft going straight up above the roof in the form of a chimney.

It must be remembered that the ventilating shafts are effective only while the stove is in use. When the chicks are big enough to do with less artificial heat, the windows must be kept open to admit air. A piece of muslin stretched on a frame, which is fixed over the opening of each window (on the outside) will prevent the cold air from beating directly on the chicks.

A thermometer is suspended at a distance of 2ft. from the stove, and 2 or 3 inches above the floor. This thermometer should register 90° Fahrenheit during the first week of occupation of the brooder room by newly hatched chicks. Afterwards the temperature may be allowed gradually to drop, until, at the age of 5 or 6 weeks, the birds require practically no artificial heat.

A screen of muslin on a circular wooden frame should be erected at a distance of from 12 to 14 feet from the stove. The baby chicks are placed inside this enclosure, and being unable to travel far from the stove, will learn in a couple of days to keep near the warmth. At the end of this time, the screen may be removed.

It is found that the chicks take up their positions in the form of a perfect circle round the stove, at a distance of from 18 to 24 inches from it. If the heat is excessive, the whole mass will move back slightly, and if they feel at all cold, they will move forward, the formation, in either case, usually remaining perfect.

The closest personal attention is, of course, essential, during the whole period of brooding, no matter what the method employed, but with the room-brooder, the work of supervision is reduced to a minimum, being concentrated within a small area.

On the south side of the brooder-house there must be a run. For a brooder of the size described, it is best, if possible, to have one acre fenced in as a run. This ground should be sown, as early as



possible in the spring, with some crop suitable for chickens, kale or clover and grass. Until the chicks have access to this, they must be given plenty of green stuff, such as fine chopped clover.

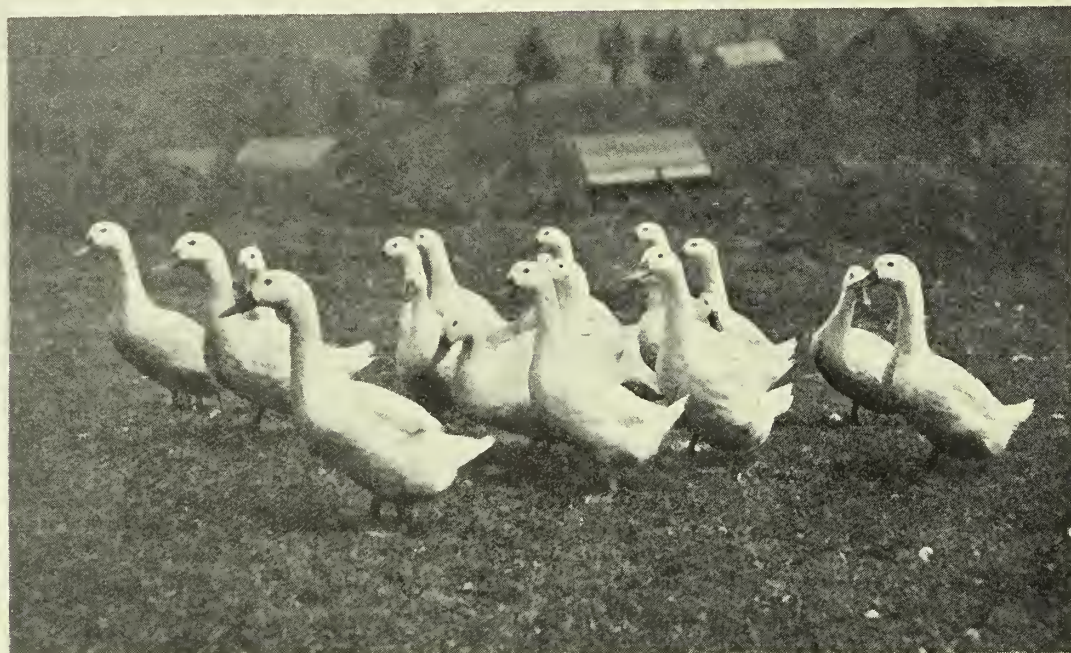
For the first few weeks, an inner portion of the run, next to the house, should be fenced off as a temporary enclosure, 20 or 30 feet square will be sufficient. The fence should be made of 1-inch wire netting, 2ft. high.

The actual capacity of a room-brooder of the dimensions given above is any number up to 1,500. But although good results have undoubtedly been obtained with this maximum number, a more complete success is likely to be attained with only

houses in flocks of 50; until October, by which time all the pullets should be housed in their winter quarters.

The accompanying illustrations show the open-fronted type of laying sheds.

Those birds which begin to lay early, may generally be considered reliable for breeders; when selected, they are leg-branded. Birds for breeding are two years old. Thus, pullets hatched in the spring of 1913, are selected in December, 1913, and mated in the spring of 1915. These pullets will lay from October or November, 1913, to October or November, 1914. They will then moult until January or February. They should not be encour-



**Pekin Ducks on the Lakeview Farm, Westholme, Vancouver.**

*[Copyright.]*

1,200. Of these 1,200, about 600 will be pullets, of which at least 500 ought easily to be raised to maturity.

It is advisable to let the birds out as early as possible in the morning when they are growing strong. To obviate the necessity of rising at 3 a.m. or thereabouts to open the doors for the chickens, some poultry farmers employ a very ingenious, though slightly complicated device, which is worth mentioning, although it does not lend itself to accurate description.

This arrangement is connected with the ordinary doors by which the chickens go in and out of the brooder-house, and is so constructed that the doors are opened automatically by the weight of the chickens stepping on to lever planks below which causes a weight to be released thus raising the trap-door.

After two months old, not more than 200 pullets should be kept in the brooder-house; the remainder should be matured in separate houses, or in colony

aged to lay again until they are mated in February, 1915.

After the breeding season, the hens will continue to lay well during the summer, and are then marketed for the table.

The remaining pullets, not selected for breeding, lay for 12 months and are marketed for table use at the age of 18 months.

The raising of ducks in conjunction with poultry farming is carried on to a certain extent on Vancouver Island, but few people seems to realise how really large profits may be obtained by raising ducks and putting them on the market at 8 or 10 weeks old.

The last photograph shows a small group of Mammoth Pekin ducks, 12 weeks old.

The conditions at Lake View Farm are admirable for keeping ducks, and there are probably no finer birds in America than Mr. Solly's strain of this breed.



## PERSONAL LETTERS FROM AN OLD FANCIER.\*

## XII.—TO A COLONIAL POULTRY BREEDER.

DEAR MR. SOUTHERN,—How the time flies!

The years roll on. You and I at different ends of the earth are getting older. It seems but the other day since you left the old country, yet it is more than twenty years ago. Your letter recalls many memories of the times when we were rivals—always friendly—but each keen to be the victor. We were not alone in that respect. What we rejoiced in was successful realisation of our ideals in breeding. The prize gained was merely the hall mark. It was not the cup or the money, but the satisfaction we desired. I fear that is seen to a lesser extent in later days. We found true pleasure in our pastime. The humours of the Fancy seem to me to have disappeared. Perhaps it may be that my risible faculties are less keen with advancing years. I like to see that side. Someone has written that “wrinkles should merely indicate where the smiles have been.” Too often those facial furrows are due to frowns; that is unhealthy.

Do you remember the time we spent together at the Portham Show—the only time I was there—and young Russell? Of all the fools I ever met, he was the biggest. Because he had bought a few tip-top birds, and won a good many prizes, thanks to Tom Borstall, his poultryman, he thought he knew everything—on twelve months' experience—and could lay down the law to everyone. I call to mind your laughter that evening in the hotel smoke room: it was contagious. The tears ran down my own cheeks with sheer enjoyment. “There is no cure for a big head,” and his was elephantine. He thought our pleasure was due to appreciation, and he swallowed all our chaff as gospel truth. Had he been less bumptious and conceited, there was not a man in that room but would have helped him gladly, and without any personal object in view, for we all liked him. It was all right so long as he let someone else do his buying. The end came suddenly. He went one day to visit a rival's stock, bragged of his knowledge, made an offer of £20 a bird if allowed to take his pick of a dozen, which was accepted. Those he chose were the culls of the lot, and would have ordinarily been sold for 10s. each. That £240 was the last straw; his father learnt in other ways what a fool his son had made of himself, and stopped the supplies.

All this, however, is by the way, although I wish you were here once more, so that we could talk

over the old days, and fight our battles once again. Perhaps each would help to dig out of the other's brain incidents long forgotten, the recounting of which would make us feel we were young again.

In your letter you asked about the Fancy in this country to day. Were you not so old a friend I should refuse to answer, for two reasons, one, that I do not like to cry “stinking fish,” and the other, that unless you knew me well you might imagine that it is the first premonition of senility leading me to take a doleful view. I do not think such is the case, for I am not alone in what is to be said. You colonials have been so misled of late years by the shrieks of politicians that you have come to believe the old country is decadent. That is only “pretty Fanny's way.” There are, however, many who realize that the whole aspect of the Fancy in England is rapidly altering. Some there are who will not believe it: they are like the schoolboy who said that “Faith is believing what you know ain't so.” Still, there are faithful souls who cannot discern the signs of the times, or look beyond the immediate present. Sometimes we who are older can see, in the light of past experience what is hidden from others.

If you believe all that a few of the more successful breeders say, or accept for gospel all that is printed week by week, especially the lengthy show reports, it might be thought that the Fancy was never so prosperous as now. The first-named have never felt the pinch, for they have always a demand for their stock. They have only to shout loud enough to secure a clientèle, but as Mark Twain once said, “Noise proves nothing. Often a hen who merely laid an egg cackles as if she had laid an asteroid.” The real test is applied elsewhere. What has impressed me most of all during late years is the few men and women of means who go in for exhibition poultry, as compared with days gone by. Can you not recall the remarkable bevy of keen fanciers who foregathered at Birmingham every year, men who could buy whatever they wanted, and did so, knowing how to use their purchases? The names do not matter: you know them as well as I do. There are some yet, but not many, and the new recruits are scanty indeed. They did it for the sport, and were always generous to help the Fancy and its interests. On the other hand the same influence is evident among the rank and file. You know the one and two-exhibit men were the backbone of the Fancy, often winning even against the big guns; breeders to the core, who found their recreation in a pursuit which was to them worth working for the entire year round—good winners and better losers. Happily there are many still left, but the number decreases and younger men are not filling the gaps. The Fancy is becoming too professional, and with that element much of the true spirit dies.

The previous letters have been :—

- No. I. —“To a Young Judge,” March, 1912.
- No. II. —“To a Show Secretary,” April, 1912.
- No. III. —“To a Lady Poultry Farmer,” May, 1912.
- No. IV. —“To a Disappointed Exhibitor,” June, 1912.
- No. V. —“To a Country Poultry Instructor,” July, 1912.
- No. VI. —“To a Specialist Poultry Breeder,” September, 1912.
- No. VII. —“To a Poultry-phobe Agriculturalist,” October, 1912.
- No. VIII. —“To a Show Reporter,” November, 1912.
- No. IX. —“To a Master of Foxhounds,” December, 1912.
- No. X. —“To a Poultry Co-operator,” January, 1913.
- No. XI. —“To a Chairman of a County Education Committee”  
July, 1913.



There is another reason, however, for the latter change, namely, the growth of utility poultry breeding. Not many years ago when farmers and amateurs wanted fresh blood this was purchased from fanciers, and you can remember that apart from the high-class show birds, every breeder of what might be termed useful breeds had a steady outlet for surplus stock at fair prices. The statement has often been made that fanciers got rid of their culls in this manner. To some extent that was true, but these culls were not weedy specimens. As a rule they were just a little below the exhibition standard, typical specimens of their respective breeds. It is certain that this business was equally good for the breeder and the purchaser: it had a profound influence in helping forward utility poultry in the early days.

To a very large extent all that has changed, and this trade now only exists to a very limited extent compared with what was the case at one time. Some of our most enterprising breeders have recognised the fact, and advertise "utility" stock; others are being left behind where this class of sales is concerned. They are like the chick that ran down the yard after its head was cut off, and someone said, "It's dead, but doesn't know it yet." Many have gone on in the old way regardless of altered conditions. No wonder they are finding trade more difficult to secure! The large number of purely utility poultry farms which have arisen of late years are more and more capturing the buyers, because, although their birds may not be so perfect in details, from the point of view of production they are much more profitable for the ordinary buyer, who doesn't care in the least for mere feather. What he wants are birds which lay well or grow flesh rapidly, combined with vigorous constitutions. Yard breeding does not conduce to the latter. I think it was George Eliot who said that "breed is stronger than pasture," which may be true to some extent, though the method of raising is much more important than is generally imagined.

The truth is that fanciers have been their own worst enemy, and the loss of a valuable trade is due mainly to their own folly. In many breeds points have been developed to such an extreme that they are no longer of the same practical value as when first introduced. Old Gorgon Graham said that "the meat's always in the middle of the sandwich," which wise saying only serves to emphasise that a middle course is always the safest and most profitable. Excess may be immediately successful, but never pays in the long run. I was talking the other day to one of our most prominent fanciers and a contemporary, on this very question. He told me that whilst he has maintained a good demand for his best specimens, he does not sell one of the cheaper grades, which form seventy-five per cent. of his chickens, where he used to find a ready market for half a hundred. He sorrowfully admitted that it made a vast difference to his annual returns, and acknowledged that fanciers had blundered greatly. It is not a case of two roads, whichever one you

take you'll wish you had taken the other, but of sacrificing the substance for the shadow, that is, the substance of a large and widespread demand for the shadow of a limited one.

Some of the breeds which we knew and admired years ago are scarcely recognisable now. They have been evolved into monstrosities, ornamental it may be, but lacking in the essential usefulness. These are the extremes, yet, more or less, the principle applies to all varieties. I am all for progress; we cannot stand still. It is either forward or backward. Up to a certain point the great value of the Fancy, without which it would have been impossible for poultry-keeping to have made the advance it has, was in securing uniformity of type and fixity of quality. It is a fact that in the early history of nearly all our breeds due regard was paid to what may be regarded as practical values. When once that has been reached there seems to have been a strange fatality, more especially with breeds which win wide popularity. Exaggerated points are developed, many of which are positively harmful, so much so that the very success of a breed is often the means of its deterioration. An example is the insane rage for excessive whiteness of feather in certain breeds. Apart from the ethics of bleaching, which is fraudulent, breeding along these lines is tending to produce albinos, and the days of degeneracy has dawned. It is often forgotten that where there is only one reason for failure, there are many for success. Many fanciers have preferred and are preferring the isolated line.

Probably you have people in the colonies who think that shouting is doing. We have a fair number of the class here among fanciers—as other sections of the community. I was reading some time ago a recent book in which imagination ran riot, and it recalled to me something which my favourite, Gorgon Graham, wrote to his son. "When it comes" said he, "to right down, plum foolishness, give me a rooster every time. He's always strutting and stretching and crowing and bragging about things with which he had nothing to do. When the sun rises you'd think that he was making all the noise; when the farmer's wife throws the scraps in the hen yard, he crows as if he was the provider for the whole farmyard and was asking a blessing on the food; when he meets another rooster, he crows, and when the other rooster licks him he crows; and so he keeps it up straight through the day. He even wakes up during the night and crows a little on general principles."

The fact is, my friend, the selfish side of the Fancy has developed unduly at the expense of the altruistic, and, needless to say, that is not the way of advance. I have read that "we never really possess a thing until we have given it away," and, also, "to be better off is not to be better." Selfishness ever regards the present and disregards the future, for the simple reason that there is no certainty in the remote. One eye should ever be on the days to come, and I fear the Fancy as a whole has lost the power of visual range. It is largely



true that "some men's limitations are their experience; they have no faith to attempt more." Constructiveness often appears to be a lost art, but that is where the utility side has scored, for it has been eminently constructive.

A generation ago, and even less, poultrymen in this country were all in one camp, and fanciers were the commanders of a large and powerful army. Whenever and wherever we found progress being made members of the confraternity were leading the way. Yet even at that time there were signs of division of forces, although the gap was narrow, and might have been bridged without difficulty. It only needed consideration for practical aims, and recognition of the essential importance of maintaining, not to say developing, the economic as well as the ornamental qualities of the useful breeds of poultry, for that happy state to have continued. Unfortunately such has not been the case. Instead of unity, each branch operating along its special line, working cordially in conjunction, and both converging to the same goal, the division of forces and action appears to be widening. Every day the chances of re-union become more remote and the separation is wider and deeper as time proceeds. It is not merely a question of acts but of divergent ideals, and I am bound to say that the various clubs are our greatest hindrance. We are literally clubbed to death, and if ninety-five per cent. of our poultry clubs ceased to exist the prospects would be brighter.

Do not, dear Southern, imagine that the whole fault for the present position is on one side. Utilitarian poultry breeders have made mistakes just as have fanciers, and they must carry a share of the responsibility, although the contempt with which they were treated was not easy to bear. "The only animal the Bible calls patient is an ass," and there is not much of that creature in them, except, perhaps, for the determination and persistence in their own way. The truth that they are winning all along the line, and consequently have no need to make extravagant claims as the realities of the case, is most evident. I could take you to districts you

know very well, which at the time you left this country were hot-beds of fanciers, where the number of poultry breeders has increased enormously, but all along utility lines. Fanciers, as such, are in an ever-declining minority. That is symptomatic of the entire country. At one period breed was everything, but now it is only part of a larger whole, important it is true, but, to use a Mendelian term, recessive and not dominant, as was formerly the case. One of the most striking proofs of what is here stated, is that, except in the specialist journals which devote themselves mainly to exhibitions and exhibitors, the remarkable growth of attention given by general newspapers to poultry questions is entirely in a utilitarian direction.

Such may seem to you a sad picture of what are the movements in the homeland. No one regrets it more than do those like myself who have spent a lifetime in the pursuit. Such, however, are the facts: would they were otherwise. You wanted to



**Flock of White Leghorn Hens on the Koksilah poultry ranch, Vancouver.** [Copyright.]

know the truth, and I have told it. It would be cowardly not to state facts as they are. You can recall a witness in the Parnell Commission Enquiry who claimed that he had been shot at, and in cross-examination it was suggested he was a coward for ducking his head, and not going for his assailant. He observed, "Sure it was better to be a coward, for five minutes than to be dead all the rest of your lifetime."

Yours reminiscently,

ENOS MALPAS.

P.S.—I think it was Emerson who said, "Better be a nettle in the side of your friend than his echo." That must be my excuse for plainness of speech.



# THE HISTORY OF TWELVE MONTHS EGG LAYING COMPETITIONS.

NEW SOUTH WALES AS THE PIONEER.

[N an issue dealing principally with Colonial matters, it is impossible to omit some reference to the egg laying tests that have been carried out in Australia during the past decade, particularly as the results have been so great, exceeding the most sanguine hopes of the early promoters.

Like a great many other notable achievements the initiative was on the part of private individuals, and it says much for the sporting instincts of certain poultry-keepers that such remarkable results have accrued from their early efforts.

It is impossible to deal fully with the many interesting and instructive particulars that have been recorded during the ten years' tests at the Hawkesbury Agricultural College, N.S.W., from 1902-1912, therefore we will content ourselves with a general survey of the work as it has proceeded year by year.

## THE ORIGIN OF THE TESTS.

A controversy had been in progress in the summer of 1901 in the columns of the *Sydney Daily Telegraph* as to the merits of certain of the heavy breeds as winter layers. One of the participants in this discussion, Mr. A. E. Henry, challenged Mr. H. E. Kelly who had started the feud, to pit a pen of his Silver Wyandottes against the latter's Buff Orpingtons.

Such a trial would have served no useful purpose, but as so much interest had been raised by this sporting offer, the *Daily Telegraph* announced that "if breeders came forward with promises of sufficient support, we will make arrangements for the competition to be carried out in the most impartial and reliable manner." This announcement was made about the middle of August, 1901, and before a week had passed forty breeders had offered to enter fifty-seven pens. This it must be remembered was without any inducement in the form of prizes, for this addition was only made public at a later date.

The then Principal of the Hawkesbury Agricultural College—Mr. G. Valder—gave the scheme his hearty support, and no time was lost in erecting the necessary number of pens for the competition. Each entrant was limited to one pen and forty-two in all notified the authorities within the stipulated time.

A committee of management was selected to draw up the conditions governing the test. This consisted of the Principal of the College, Mr. D. S. Thompson (poultry expert), Mr. A. A. Dunnicliff, Jun. (representing the *Daily Telegraph*), and five representatives of the competitors elected from their own number by ballot. The interest and keen perception of the educational possibilities of Mr. H. W. Potts, the present Principal of the

Hawkesbury College, very materially aided in rendering the efforts of the committee effective. Nothing, however, has contributed more to the success of the competitions than making the poultry-keepers themselves feel that they were playing a direct part in the work.

The original object of the promoters was not to look upon the competition merely as a means of pitting one man's birds against another's, but rather to sink the personal element as far as possible keeping the educational factor studiously in the forefront, and one has only to read the report of the ten years' work to realise how successfully this effort has been attained. New experiments have been introduced every year, and this has sustained an unceasing interest. It is certain that not one of the original promoters ever thought that even after ten years' work the possibilities of the competitions as a focal point for the uplifting of the industry would still be unexhausted.

To the beginner these competitions are a valuable object lesson, and incentive. He becomes interested and absorbed in the published reports of scores, and finally desirous of essaying a trial of his abilities. Reading poultry literature and visits to a poultry station help him to understand the possibilities and the limitations of the industry, and in this way he is educated along right lines.

## TEN YEARS RESULTS.

For the first five years each competition was held for a period of twelve months, that is only during the first laying season of the birds. When the organisation of the sixth annual test was considered, it was agreed that the time was right for making an extension of the trial, as the real test of a layer is over a period of two years. This movement met with a cordial response, and forty of the fifth year competition pens were entered for the first world's two years' test. Again in the ninth year another change was made, and in this test ten pens of the two year old birds were re-entered for a third year.

In the ten years 4,008 pullets, representing thirty-one breeds and varieties, were tested. These returned an average of 166.9 eggs, to the value of  $16/1\frac{3}{4}$  per head. The cost of feed averaged  $5/11$  per bird per annum, and the profit over cost of feed was  $10/2\frac{3}{4}$ . A total of 55,748 dozen eggs was laid, and these netted, after deduction of marketing expenses,  $1/2$  per dozen.

During the five years when two year old birds were tested, 1,200 hens were entered, and these laid a grand total of 13,420 dozen eggs. The general average per hen was  $132\frac{1}{4}$  eggs, value  $13/8$ , cost of feed  $6/7\frac{1}{2}$ , and profit  $7/0\frac{1}{2}$ .



The average production, value and profit for first and second years are as follows:—Average egg yield 299, value £1 9s. 9½d., cost of feed 12/6½, profit 17/3. These figures are averages, but great individual variations were noted. Two pens entered realised a profit of 22/8¾ per bird over the two years, whereas, two other pens only made a return of 11/4¼ per bird over the same period.

The 120 birds in their third year averaged 122·7 eggs each with a value of 11/-. The cost of feeding was 5/9½, leaving a profit of 5/2½. These hens had all given good results in the first two seasons, and the results indicate that a good layer might be

so. That which would most help the poultry industry to a higher plane has always counted first with the governing body.

When it came to making a selection of entrants, those who were dependent in poultry-keeping for their living had first consideration; those whose partial livelihood was derived from this industry received second choice.

The main object of the continued tests has been to increase average egg production, and the question naturally arises whether such a result has accrued from the ten years' work. Has the standard of ten years ago been improved upon, and



Laying Flocks on a New Zealand Farm.

[Copyright.]

profitably retained for a third year. It will not be found wise, however, as a general rule, to keep hens for this length of time.

#### CONCLUSIONS.

The aim has been throughout to make the competitions educational in the widest sense of the word, by stimulating effort in as many directions, and by throwing light upon as many points, as possible. Wherever it was seen that by making a sacrifice in one direction, greater good was possible in another, the committee has never hesitated to do

if so to what extent? The competition records yield no definite evidence of any progress towards greater maximum fecundity, and the inference is that there are definite limitations to advancement in this direction. What is of greater importance is whether better average results are obtained to-day than a decade ago, for this is undoubtedly the real test of improvement. From a careful analysis of the records it is apparent, that by selection and more careful breeding a greater proportion of hens has been produced of the higher standards in laying capacity, although much has still to be learnt with



reference to the transmission of laying qualities from parents to progeny.

For the 12th year's competition the committee has arranged for the erection of 60 single-hen pens, in order to obtain absolutely accurate individual records of 60 birds. From these pens records should be secured that will give further light on the whole question of pedigree breeding.

## INCREASING THE NUMBER AND QUALITY OF EGGS.

IN a lecture delivered at Bloemfontein, Orange River Colony, Mr. A. Little, of the Grootfontein College, Cape Colony, made the following suggestions:—

Among fowls there are naturally good and bad layers. We wish, of course, to keep and breed from the former, and discard the latter, and in order to do this we must know how to recognise them. There are three methods—

(1) By observing habits and outward signs. The best layers are those which are earliest off the roost, and the latest returning to it; the earliest to show signs of maturity (of course, age for age); those that suffer no check, but continue growing from the time they are hatched to maturity. Those that are the most active have a good red comb and face, a bright eye, are quickest through the moult (especially those which lay through it); those which lay at the time when eggs are scarce, also the birds with long bodies, well developed behind and legs set well apart.

(2) By handling the birds and ascertaining which have the points necessary for a good layer, such as a neat, fine, medium-sized comb, a small, neat head, a short, stout, well arched beak (a bird with a long, course flat head and long beak is never a good layer), good breadth across the back at the root of the tail, a good width between the ends of the pelvic bones, and a good distance from these to the end of the breast bone, which should be short and absolutely straight, the tail fan-shaped and carried well up.

(3) By the use of the trap nest and keeping an accurate record of the eggs laid by each hen. This last, of course, is the most reliable method, but many poultry-keepers have not the time to devote to it.

So much for the hen; now we will deal with the male bird.

(1) The one which develops quickly, which crows soonest, is cock of the walk, is the best fighter, carries himself well and is the most active.

(2) Again, by handling, and noting points, such as a small to medium-sized comb, neat and of fine texture, a bright, prominent eye, short, stout, well-arched beak, especially the one with a short broad,

flat back, a short breast bone, legs set wide apart, tail carried high, with long sickle feathers and with long numerous side-hangers (the curved, narrow feathers which hang down from the side of the tail).

(3). Choose the sons of the best layers.

### GOLDEN RULES ON BREEDING.

Now with regard to breeding I will give you one or two golden rules which should always be followed.

(1) Carefully select the best only, and employ systematic pedigree breeding. By best is meant the best layers, the strongest and most vigorous, and adopt pedigree line breeding, i.e., mate sire to daughters and mother to son; in this way you fix the qualities of good laying, vigour, and stamina in the descendants.

(2) Select for constant improvement of utility qualities. Too many breeders purchase a pen of birds of a good laying strain, and instead of improving year by year, by common-sense breeding and selection, many seem to think that every pullet hatched from them and their descendants will be a good layer; others don't take the trouble to select the best each year for breeding. The result is that instead of their birds improving year by year they deteriorate.

(3) Maintain type as far as possible, but don't allow unimportant external characteristics to take a prominent place. For instance, a bird may have good utility points, but it may fail in type in that its comb has one more or one less spike than the standard lays down; don't discard it for this fault if other qualities are good.

(4) In addition to individual egg production or combined egg production and meat qualities, stamina, vigour, and a strong constitution must be considered. This applies to such a bird as, for instance, your best layer; from some cause or other she may have had a serious illness, enteritis, roup, etc. You must at once discard her, for by breeding from her and her progeny you would perpetuate a fault, a proneness to a specific disease.

An old colored person who was asked if, in his experience, prayer had ever been answered, replied: "Well, sah, some pras is ansud an' some isn't. 'Pends on what you axes fo'. Just arter de wah, when it was mighty hard scratchin' fo' de cullud breddren, I obsarved dat whenebber I pway de Lord to sen' one o' Marse Peyton's fat turkeys fo' de ole man, dere was no notice took of de partition; but wen I pway dat he would sen' do ole man fo' de turkey de matter was 'tended to before sun-up next mornin', dead sartin!"

"Every heart knows its own misery," she said, as she looked into the nest and saw that those Buff Cochins which had cost three dollars per dozen, had been carried off by the rats.



## PEACE AND POULTRY IN THE BALKANS.

By EDWARD BROWN, F.L.S.



OW that the Balkan States have arrived at a long desired peace, apart from all questions which have arisen as a result of the second war between the quondam Allies, the next step in each of the countries concerned must be constructive, in order to make good, as far as that is possible, the devastation which has spread over the area of conflict. It will be a long time ere the human loss can be replaced. From private information received it is evident that Bulgaria and Servia especially have suffered in this way both in killed and wounded to an extent unrealised. Modern arms of precision are so deadly that the slaughter when armies come into close contact is terrible indeed. Perhaps the full records will never be published, if they are even known. A generation must elapse ere the gaps are filled up. In the newly acquired territories of Bulgaria, Greece, Montenegro and Servia such losses are much smaller than in the older parts of those countries. It is from the latter the armies were mainly drawn. Consequently throughout Novi Bazar, Macedonia, and the parts of Thrace which are retained by Bulgaria, there is a population ready to hand.

It will be remembered that in the December, 1912, issue of the *Poultry Record* (Vol. IV, page 107), I indicated that the prospects of development were very great in respect to agriculture and horticulture in general, and poultry in particular, as the conditions are favourable in the extreme. At that time it appeared as if Servia would find access to the sea so long denied her on the Adriatic through Northern Albania. If her conquests had determined the question such would have resulted, as she won her way thereto by force of arms. The Powers, however, intervened, with the result that she has still to cross another territory than her own in order to reach the *Ægean*. If Salonica is made a free port that will be her outlet and inlet from Nish over the Vardar river railway. Further east Bulgaria has reached the open sea, although the conquests of Greece in the second war have considerably reduced her shore line. Thus we have now a condition of affairs, presuming that Servian claims can be arranged with Greece, by which all the four Powers named have direct access to the Mediterranean, equally for exports of produce and imports of goods. Roumania is on the Black Sea, and is, therefore, compelled to consider the passage of the Bosphorous and the Dardanelles.

What is to be the future of these countries no one can tell. That depends upon themselves.

So far as opportunities are concerned in the production of eggs and poultry, as of other food supplies and of tobacco, these are great in the extreme. The three great table lands of South-eastern Europe, the rich valleys of Macedonia, and even some of the higher lands, are capable of vast development. The question is, whether the respective Governments will nurse their animosities, thinking only of future struggles for mastery, spending time and thought and money in military preparations, or, like Denmark after her disastrous war with Germany, accept facts, hard as they may be, and set themselves determinedly to develop their natural resources. It is in the latter manner that the Danes have made themselves the second most wealthy nation in Europe, *pro rata* to their population. I understand that consideration has already been given to this question in some cases. It is of course yet too early to expect action. The resources of these countries are vast. They need, however, to be developed.

With respect to Bulgaria, as I have previously shown, her country is capable of carrying many times as many poultry as hitherto, and I understand that the new territory is specially favourable. With ports on the *Ægean* she should be able to rapidly reach several great markets in the west. Probably for some time her grain trade will receive special attention.

Greece has not been known in modern days as a poultry country, in spite of her historic association with cock fighting, and probably the habits of its people have conduced to encouragement of other branches. Her new lands in the Epirus and Southern Macedonia give her countries where much more could be done. It is time, therefore, that her Government took up this question on an advanced basis.

Montenegro is least likely of the ex-Balkan Allies. I am informed that by arrangement with Servia she will secure the greater part of Novi Bazar, and thus have access to rich pastures so long denied her. The people there are, however, scarcely of the type at present to make poultry-keeping an important part of their operations, whatever they may be in the distant future.

Such is not the case in Servia, and I am assured that in the newly conquered lands it is even more so. The Servians whilst mountaineers are excellent farmers, as shown by their products in other branches of agriculture. Their prosperous villages, which I remember with great interest and pleasure, afford hopes for unity of ideals and co-operative effort which



should do much. Probably we shall see Servia first to push forward the Poultry Industry. If that is done alike for egg production and turkey breeding she has a great future.

Roumania has done something already, and breeds large quantities of geese. Her eggs probably are sold as Galician, and find their way to Germany. As to that, however, I cannot speak personally, as I have not visited that country.

## POULTRY BREEDING IN AUSTRALIA.

By G. BRADSHAW.

*Government expert of N.S.W.*

OFFICIAL documents tell us that a number of fowls arrived by the first fleet which reached Australia now over a century ago. That the climate was suitable, succeeding records attest by telling us the poultry multiplied exceedingly.

Despite the above, poultry farms or poultry farming is largely a feature of the past twenty-five years, and during the latter part of that period it can safely be said, that apart from dairying, there is no other Australian industry which has shown such expansion, particularly in the mother state of New South Wales.

Going back thirty years, just prior to my arrival there, poultry were kept in smaller or greater numbers on the majority of the farms or holdings in the state, not as a business but rather as an unimportant side issue to other better paying stock or crops. The vast majority of the poultry then were the usual nondescript sort, descendants of the original stock with an admixture of blood from occasional later arrivals by the wool ships which traded to Australia.

### THE POULTRY FANCY.

For many years prior to the time of which I write, poultry shows were held annually in the capitals of the respective states, where from four to six or seven hundred exhibits usually appeared. Whether from high quotations asked for eggs and stock by the owners of these show birds, or other cause, the pure breeds rarely got into the hands of cottagers and farmers, and indeed at that time to have seen a pure bred fowl outside the yards of an exhibitor was a rarity. The shows, however, bore good fruit through the competitive spirit engendered, and from then till the beginning of the present century considerable importations of all the popular breeds were of regular occurrence from England.

With this influx of prize stock and very few places to exhibit, there was an agitation for more shows, with the result that by 1900 or later the respective suburbs of Sydney and Melbourne had several each. Poultry clubs were formed and increased to the extent that at one time there were between forty and fifty shows catering in N.S.W., a number which later results testify as quite too

many. The great increase in the shows was responsible for the increase in the fanciers and fanciers' fowls, with the result that the time came when there was but little sale for stock at fancy prices, and resource was had to monthly auction sales where large numbers found ready buyers at from 3/- to 10/- or more each.

These reasonable rates for really good stock were responsible for great numbers of farmers and others giving the mongrel sort the go-bye, and with one or two other factors resulted in the pleasing feature that at the present time 80 to 85 per cent. of the five million head of poultry stock of the state are pure breeds.

### POULTRY FARMING.

Apart from the reasonable rates that pure breeds have for a considerable time been obtainable the general adoption of such would have been a slow process but for the very improved prices for poultry products which have obtained now for a number of years. The increasing prices mentioned below are due to the much improved buying ability of the community through the very prosperous condition of the state during the past ten or twelve years, so much so that few countries in the world offer such facilities for profitable poultry culture as the State of which I write. It is not a question of does it pay? but how well does it pay? Before leaving this subject I should remark that six months ago when lecturing in a district some dozen miles from Sydney, the chairman informed me that there were in that municipality over one hundred families making their living exclusively from poultry farming.

The following are the monthly average prices for eggs per dozen in Sydney for the years 1906, 1908, 1910, and 1912:—

	1906		1908		1910		1912	
	s.	d.	s.	d.	s.	d.	s.	d.
January ... ..	0	10½	1	0	1	3½	1	2½
February ... ..	0	11½	1	3	1	6	1	6
March ... ..	1	5	1	6	1	8½	1	8½
April ... ..	1	7½	1	9½	2	1½	2	2
May ... ..	1	7	1	7	2	2	2	3
June ... ..	1	6	1	6½	1	7	1	10
July ... ..	1	1½	1	4	1	5½	1	6½
August ... ..	0	8½	0	9¾	0	11½	1	1
September ... ..	0	7¾	0	9	0	10½	0	11¼
October ... ..	0	8½	0	9½	0	11¼	1	0½
November ... ..	0	9	0	10½	0	11½	1	1½
December ... ..	1	0	1	3	1	2½	1	4

That the people responded to the above advance in prices will be seen from the following figures issued by the Government statistician of the State.

These figures are collected annually, but unfortunately for the industry refer to the poultry keep on areas of one acre and over. Authorities however agree that a fairly accurate estimate would be to add from 30 to 33 per cent. to the above. I do not know how other countries are situated in this respect, but am aware that we have quite a number of people making a living by poultry breeding on places from an acre and under.



## ESTIMATED LIVE POULTRY on Farms and Holdings of 1 acre and upwards.

At end of year.	Fowls.	Ducks.	Geese.	Turkeys.	Other.	Estimated Number of eggs obtained during year.
	No.	No.	No.	No.	No.	doz.
1908	2,721,986	229,870	25,631	193,613	24,514	11,305,299
1909	2,672,385	257,741	25,878	224,187	36,000	12,096,859
1910	3,072,375	315,550	28,980	244,456	35,015	13,204,906
1911	3,218,400	321,400	26,280	232,500	46,011	13,637,000

The 1912 figures were not issued in June, the date of my leaving Australia, but there is no doubt the increase continues, and quite a number of the newer poultry farmers are from the United Kingdom.

It will be seen that from 1908 to 1911 there is an

Poultry farming can be commenced in Australia and particularly in New South Wales, with a less capital than perhaps in any other portion of the globe. While there are men and women who are making a living from the fowls carried on one acre of land, the bulk of the poultry farms are of three

**PROGRESS IN BRITISH COLUMBIA.***[Copyright.]*

View on Mr. Pither's Farm, near Victoria, where housing and run accommodation for over 2,000 hens has been erected.

increase in poultry of over half a million head and over two million dozen eggs. To the above numbers there have to be added about one third for the quantities kept on the areas under one acre. The approximate estimate of the poultry of the State is five million head. The estimate in value by authorities is from £1,600,000 to £1,700,000 or about 20 per cent. per head of the population.

acres and over. Despite the fact that the State embraces over 198,000,000 acres, a large portion of which can be purchased at a mere nominal figure, these immense areas are unsuitable for poultry farming through their great distance from the capital, which is the principal market or outlet for the State's production. And while fowls are profitably kept on farms great distances from the



Metropolis the exclusive poultry farmers find it more profitable to secure the more highly priced land within, say, driving distance of the markets. Consequently the majority of the poultry farms are not beyond a 30 mile radius of Sydney, and the larger portion of these within twelve miles. Seeing that the population of Sydney and suburbs is now approaching three-quarters of a million and increasing by about thirty thousand annually there is a continuous movement outwards, all tending to higher prices for suburban lands, with the result that those now wishing to acquire from three to ten acres of freehold land within a dozen miles of the metropolis will be obliged to pay from ten to twenty pounds per acre. Beyond these distances from six to ten pounds per acre, according to distance from railway station or other features, are the approximate prices. When the purchaser elects to go beyond fifteen or more miles where the land is cheaper he usually goes in for a larger number of acres according to his means and prospects.

To those unacquainted with the conditions in obtaining land in this portion of Australia it should be explained that much of the available land within the areas mentioned and beyond are portions of some old estates acquired in the early days by the original holders at some trifling or perhaps no cost. Since then they have passed through many hands, and ultimately secured by some big company or syndicate who cut the places up into ten, twenty or more acre blocks, made roads through the property, sold by public auction or privately and at terms favourable in the extreme.

### Egg Co-operative Societies in France.

The first egg co-operative society was founded in Denmark in 1894. The results were so satisfactory that there are now in that country over 8,000 similar associations, with a membership of over 70,000 farmers.

The example of Denmark was followed by France in 1904, when the Co-operative Dairy of Tennesse (Sarthe) began to undertake the collection and sale of eggs. Another egg society was started at Echiré (Deux-Sèvres) in 1909, and there are now existing similar societies at St. Hilaire-la-Palud, Mauzé, and St. Loup-sur-Thonnet in Deux-Sèvres; at Bois-Hardi and Chailli in Charente-Inférieure, and at Pérignac in Charente.

Each member is bound to consign to his society his whole supply of eggs, except such as are required for household consumption. He must not sell any to dealers. The eggs are collected at least once a week. A member must mark all the eggs supplied by him with his number, each egg must be above a certain size, and only fresh eggs collected since the last consignment must be delivered. Eggs recognised as not fresh, when tested, and those below the prescribed size are returned to the farmer; in the case of a second offence a fine is inflicted, and if the offence is again repeated the member may be expelled from the society.

The eggs, after being tested and sorted, are arranged in layers, and placed one above another in boxes which are forwarded to the Paris central markets. As the eggs are sorted and guaranteed fresh their prices are generally considerably higher than the quotations on the local markets.

In the St. Hilaire-la-Palud Society, the number of eggs collected per month varies from 65,000 (in March) to 50,000 (in November). The annual revenue amounts to 40,000 francs, whilst before its foundation the members

would only have received from 25,000 to 30,000 francs for the same number of eggs.

### Poultry in New Zealand.

The value of the poultry industry to New Zealand was stated at a conference of poultrymen to be two millions sterling per annum, this sum changing hands for products, produce and materials in order to keep the industry going. The average price for eggs and table poultry was fully 50 per cent. higher than it was 10 years ago. Five years ago they could count on one hand the number of persons engaged in poultry farming for a living. Now they could be numbered by the score. Farmers, too, were giving poultry their attention, since they were realising that the high prices received for eggs and table birds made the keeping of poultry a valuable adjunct to farm pursuits. A few years ago a hen which laid 200 eggs in twelve months was regarded as a phenomenon, but now the Dominion had hens which can hold their own with comers from all parts of the world, and which can lay as many as 280 eggs a year. During the last year the Poultry Association was largely instrumental in getting the Government to make a trial shipment of eggs to Vancouver with a view to testing the export trade. Although no great profits were made, the shipment clearly demonstrated that great possibilities lay in that direction, and during the next year further experiments are to be made with a view to building up a permanent and remunerative trade in the export of poultry and eggs.

### South Australia.

Reference was recently made by the Minister of Agriculture (Hon. T. Pascoe, M.L.C.) to the marvellous progress made by South Australia during the past decade. In the course of his remarks the Minister stated that the value of the wheat production had increased from £1,160,000 in 1901 to £5,400,000 exported from the State, and the expansion in the primary industries had been accompanied by progress in industrial circles. During the last five years places of manufacture had increased by 228, and the wages and salaries paid to employes in manufactories, by £910,000. For the same period the increase in the value of the output was over £3,000,000.

EGG AND POULTRY INDUSTRY.—In 1895 the value of poultry and eggs exported from the State amounted to £27,000 only, and some idea of the progress of the industry is indicated by the fact that its annual value is now estimated at over £650,000, which includes inter-State business equivalent to £150,000. At present there is a great demand for eggs and poultry at most profitable prices. The average wholesale price paid at auction for eggs in Adelaide during 1912 was 1/1 per dozen, and the rates obtained for table poultry were also very remunerative. The industry is one specially suitable for persons with limited capital, and in the opinion of the Government poultry expert, its prospects were never brighter, there being no possible fear of a glut. "If," says the poultry expert "every hen in the State were given 100 equally productive companions there would still be a profitable market for every fresh egg and good table bird."

### The Indian Poultry Gazette.

We have received No. 1 of the above monthly paper, which is the official organ of and published by the Indian Poultry Club, about which we gave some particulars recently. It is intended to promote the poultry industry in the great dependency, and as a sign that things are moving there we welcome this addition to our contemporaries. In the editorial introduction the Editor says: "What the Gazette has to do is to link up all lovers of poultry throughout the length and breadth of India, in order that they may carry on where others have left off and not be compelled to labour under the same difficulties as the earlier fanciers laboured under before making headway."



## FANCIERS AND FANCY MATTERS.

BY WILLIAM W. BROOMHEAD.

**The Royal Show.**

"Better late than never." My notes for last month's issue of THE ILLUSTRATED POULTRY RECORD had to be despatched to the printer so very early that it was impossible for me to include in them any mention of this year's "Royal" Show at Bristol. However, the exhibition—the 74th annual—was such a splendid affair that it cannot be allowed to pass without a few notes in these columns. For some few years now the event has been considered, and rightly so, as one of the very best of the summer fixtures; but if I am not much out of my reckoning the latest must have been the greatest of the 1913 'tween shows. It was certainly, as far as the poultry section is concerned, the best

by 1.15 p.m., and all the prize cards were on the pens.

Wyandottes, Orpingtons, and Sussex were undoubtedly the most popular breeds, although the first named was not so strongly supported as they have been. Plymouth Rocks, too, were well up to the average, and there was a nice sprinkling of Old English and Indian Game, as well as Black Sumatra Game. Of the Langshans the Croads were decidedly better than the Modern, which, after all, is not very surprising, since the latter are being bred to an absurd stamp and as leggy as, if not even taller than, the Modern Game. The strongest classes in the show were the two for Rhode Island Reds—with that peculiar prefix "British," though

**THE SUSSEX ARK.***[Copyright.]*

This is the favourite form of house among the Sussex fatteners. Photo taken at the Uckfield Agricultural College by S. C. Sharpe.

display that has ever been penned at any "Royal." One thing, the society does not suffer from old age, despite its seventy-four years, since there are those among the officials who know what is wanted and are careful to see that the poultry Fancy is catered for on the most up-to-date lines. Thus this year the entries reached the excellent total of 1,436 over the 140 classes, and thereby created a record. Seven judges were engaged for this section alone, consequently another record was put up, viz., the poultry building was open to the public

few, if any, fanciers can distinguish between British and American Reds. Of this breed, however, there were thirty-eight entries in the cock class and twenty-eight in that for hens, old birds and young, single combed and rose combed, competing together. The quality was decidedly good, and the "sorting of the cards"—they were in my hands—was not the lightest task I have undertaken. Of other breeds, too, there was a good lot forward, but some of the oldest of them were poor. This was so of Brahmas and Cochins, and yet there were



fourteen in each of the two classes for Dorkings. Of novelties there were Sicilian Buttercups in the Any Other Variety classes, while among the Campines were two birds catalogued as White Campines, but which were none other than White Bresse, hence, as I had the judging of them, they were marked "wrong class" on my slips.

Of the exhibitors whose birds secured prizes perhaps none was more successful than Miss Le Patourel, since this young lady, who has not long been in the Fancy, won with six entries the special and first and second prizes and an h.c. in Buff Orpington cockerels, and all the money prizes in pullets of that variety—an achievement of which many an old hand would feel justly proud. In Sussex fowls Lord Rothschild staged some rare quality birds, and was especially successful in Reds, winning three of the first four prizes, and quite a good share of those for Lights and Speckled, although in this last variety Mr. Falkenstein staged both of the winning adults and the first prize pullet. Mr. Eadson made a clean sweep of the Ancona classes—first, second and third in each—but as he is practically invincible in the breed, few care to show against his birds. In Plymouth Rocks, Mr. Marsden Chandler accounted for the lion's share of the prizes; and it is remarkable how this fancier has made headway in the breed this past season or two. He entered the Plymouth Rock Fancy when the champions were in few hands; but he has gone steadily ahead and is now reaping the reward of perseverance. Of Wyandottes Mr. Tom Furness held a strong hand in Laced, Mr. T. C. Heath in Blacks, while Mr. R. Watson and Mr. J. Wharton divided the classes for waterfowl and turkeys, and a grand section for bantams. All through, then, the 1913 "Royal" was a great poultry show.

#### Other Summer Shows.

The "Highland" Show—the annual exhibition of the Highland and Agricultural Society of Scotland—is to the Land o' Cakes what the "Royal" is to England. The classification for poultry at this Scottish fixture is quite a good one, and up-to-date, too, since it includes a section for bantams. This year the show came off at Paisley, and was held during the week following the "Royal"; but despite the fact that the English event was open for five days—many of the exhibits would be out of their runs for a week—some "Royal" birds, an old friend informs me, not only were penned at the "Highland" but were successful there. The quality throughout, as a whole, was excellent, and the poultry were well staged in a large building. The most successful exhibits, to which the society's champion medals were awarded, were Mr. Ollar's Scotch Grey, which was adjudged the best cock; Mr. T. Furness' Silver Wyandotte, best hen; Mr. W. Bradley's White Leghorn, best cockerel; Mr. C. Aitkenhead's Silver Dorking, best pullet, Messrs. J. Huntley & Son's, Aylesbury drake, best duck or drake; Mr. Fox Brooksbank's Embden gander,

best goose—his was the only entry in the gander class, and there was none in the class for goose; and Mr. Shand's bronze cock the best of the eight turkeys.

The "Royal Northern" at Kitty-brewster, Aberdeen, is another Scottish summer show that ranks among the best in the north. This year there was a fine entry of poultry though scarcely so large as the total in 1912, which was a record for the society. The quality was excellent throughout, and it is evident that present-day exhibitors in the far north have acquired the art of showing their birds to the best advantage. This event is, I believe, the only one in Scotland to be held under Poultry Club rules, and two of the club's medals in addition to some of the breed cups were offered for competition. These specials, confined to members of the Poultry Club, were won as follows:—Silver challenge cup for the best bird owned by a resident within the counties of Aberdeen, Kincardine, Banff, and Moray, Mr. David Reid's Black Orpington cock; the P.C. Wyandotte cup, and the silver and bronze medals, also the Scottish Wyandotte Club's special prize, Mr. W. Bradley's White hen; the P.C. Plymouth Rock cup, also the Barred Plymouth Rock Club's special, Lord Leith of Fyvie, Barred cock; the P.C. Leghorn cup, Mr. Durward's Brown hen.

It was a great pity that such excellent shows as the "Great Yorkshire"—held this year at York—and Tunbridge Wells clashed with each other, since both suffered in consequence; but whereas the former was allowed, as it were, to stand on its merits, there was an extension of the date for closing entries, and an appeal in connexion with the "Wells." Even I, a non-exhibitor, received a post-card from the secretary of the latter; so I presume that many were written to. Otherwise, maybe, this popular fixture would have been somewhere in the region of a failure. It is surely something of a scandal that such a well-established and ably managed show should be forced to appeal for entries; and the pity is that some exhibitors will not enter until the executive is put to a lot of extra trouble and expense. Both shows were short on account of the clashing—since on the same days there were the Stafford County Annual at Wolverhampton and other exhibitions—and yet both are among the very best of the summer events for chickens. The group special prizes at York, consisting of a guinea in cash and offered by the society, were awarded to Mr. John Brennand's Silver Grey Dorking pullet, Mr. John Wharton's Partridge Wyandotte pullet, Messrs. Whittaker and Tootil's White Leghorn pullet, and Messrs. G. H. & A. Pickering's White Pekin (or Cochin) bantam pullet. Tunbridge Wells was held under Poultry Club's rules, and the club's breeds' cups were up for competition. These, and other specials were awarded to the following:—For the best hen or pullet in the show, and best Plymouth Rock, Mr. F. Neave's Barred pullet; best cock or cockerel in show, gold medal for best fowl, (either sex), and



Orpington cup, Mr. W. M. Bell's Black cock, bred prior to 1913; Wyandotte cup, Mr. John Wharton's Partridge hen, again an adult. This exhibitor was also successful in winning White Wyandotte Club's visiting cup with a cockerel; Sussex cup, Mr. W. Hodge's Light hen, also an adult; Leghorn cup, Mr. L. C. Verrey's Brown cockerel. It would appear from this that the old birds were better than the chickens, which is quite unusual for this time of the year. At this event Miss Le Patourel "swept the boards" with Buff Orpington cockerels, gaining the special, first, second, and third prizes, and in addition won second prize in pullets. Messrs. William Cook & Sons exhibited the best Black Orpington pullet, the best White cockerel, and the best Blue cockerel, and won first, second, and third prizes in a class of twenty-three Blue pullets.

### The "Royal Lancs." Show.

There was an excellent entry of poultry at the "Royal Lancs." Show at Burnley last month, and the total numbered 994 pens. Most of the best yards in the country, and particularly in the north, were represented, hence the quality of the exhibits was of a very high standard. The Bohane principle of duplicate numbers was again in vogue; and although it led to some confusion at first, owing to the carelessness on the part of a steward omitting to remove the judging numbers ere the public were admitted to the poultry building—it is somewhat of a difficult system to work until one is well versed in it—all came out well in the end. The idea of this system, it may be mentioned, is to prevent any means of collusion between exhibitor, steward, and judge; and while some people are apt to complain of it as a direct insult to the parties concerned, there can be little doubt that it is the only plan likely to be of service in the direction indicated. Its only flaw is that it does not—and nothing can—prevent a judge knowing a bird; but since the whole of the classes are for chickens there is little likelihood of this occurring. Of course some folk claim that when once they have seen a winner they would know it in a crowd of champions; but talk is cheap. There is only one fancier to my knowledge who can actually pick out a bird which has previously won under his judgement, or has been examined by him, other than, naturally, birds which he has bred or sold, or those of his own particular strains. With all deference, however, Mr. Edward Bohane's system of duplicate numbers is unquestionably the most complete way of preventing exhibitors complaining of collusion; and in my opinion no honest judge or fancier will consider it an insult to carry it out.

At Burnley there was a good muster of judges, thirteen all told, and most of them specialists of the breeds over which they "wielded the wand." There was not a very strong entry of Game fowls; there rarely is now-a-days at the summer fixtures. Plymouth Rocks were forwarded in good numbers,

the best class being for Buff pullets with twenty-three entries. Wyandottes were fairly good, both White and Columbian pullets mustering fourteen apiece. Orpingtons were numerous as far as the classification went, but the only varieties getting recognition were Blacks, Buffs, and Whites, the others being embraced in one any other colour class. The Blacks were the best supported of the Hamburgs, since Pencils and Spangles did not show up well. There were fifteen Campine cockerels and sixteen pullets, and in the former



A good specimen of a Black Leghorn Cockerel.

[Copyright.]

class the Rev. E. Lewis Jones only missed the third prize with his team, gaining also the special over the pullets. Rhode Island Reds with four classes were by no means numerous, the best being the single combed pullets, thirteen. Leghorns made a nice display, as did other breeds of the non-sitting group, while a fine lot of bantams was forward, and waterfowl mustered well. At this show there is always a big section confined to novices, and the entries in the various classes were proof that the novice element of the Fancy is still going strong.

In connexion with the Royal Lancashire Show Mr. Richard Watson (of Thorn Garth, Thackley, Yorkshire) has written to the press complaining of the duration of the event, and believes that exhibitors of poultry are unanimous in their condemnation of it in that respect. The dates on which it is held, he says, necessitate the chickens being confined in the show pens and travelling baskets



for six days, and this during the hottest season of the year, with the result that many promising chickens are thrown into a premature moult, or, never recover from the effects of, as he terms it, "this cruel ordeal." Mr. Watson invites every exhibitor at the show who may read his letter to write to him expressing his willingness to abstain from sending any entry to this event unless and until its duration (as regards chickens) is limited to three days or less. If the response is satisfactory, he promises to bring the matter before the Royal Lancashire Show authorities and do what he can to induce them to effect the desired reform. That it is something of an ordeal for young birds to be "on show" and confined to the narrow limits of a wired cage and an exhibition basket for six days or so none will gainsay, but the option is entirely the exhibitors'. No one is forced to enter his birds at a show; and, in connexion with the exhibitions of the Royal Lancashire Agricultural Society at any rate, the rules and conditions are very plainly set out in the schedules. However, those fanciers who imagine they have a grievance should lose no time in writing to Mr. Watson as suggested, since, knowing him as I do, he will bring the matter to a head if he gets the necessary support.

## PROSPECTIVE BREEDERS.

BY FRED W. PARTON, (*The University, Leeds*).



It is never too early to regard chickens with a critical eye as to their suitability for future use in the breeding pens, and with the arrival of September, one should have a number of likely youngsters awaiting final selection. For ordinary purposes such as the breeding of laying stock the final selection need not, of course, be made at present, since the end of the year, or the beginning of next, will answer the purpose admirably. As a matter of fact it is better to delay selection because there is plenty of time before next season for the birds to undergo a change as it does not naturally follow that, in every case, their early promise will be maintained. Those who intend to specialise in early spring chickens must, however, select their breeding stock earlier than those whose primary object is egg production.

The flock of birds from which selection is to be made (and practically all of them should be good enough for breeding purposes, provided the systematic weeding-out of the chickens has been carried on from the commencement) should have as much liberty and change of ground as conditions will allow right up to the time when they are to occupy the breeding pen, since this is more helpful than almost anything else in fitting them for the arduous duties ahead. When chickens are approaching maturity, there is always a tendency to flag, and their growth appears to be arrested. If this check is not quickly overcome it is extremely detrimental when the birds have to be bred from the early part

of the year, since a lot of leeway has to be made up. A change of ground is helpful both in preventing retarded development, and also in overcoming it when it actually occurs. It is not that the ground is exactly rank—or the effect on the chickens would be much more drastic than merely a temporary check in their growth—but the freshness is taken from it by its occupancy of successive batches of chickens, and a change in such cases will prove of the greatest advantage.

Proper feeding is always of the highest importance, but never more so than for future breeders. Overfeeding is one of the most common and frequent mistakes with both young chickens and laying hens; with the former many digestive and other troubles follow, and with the latter the excess of internal fat has serious effects upon the laying organs. In the case of chickens almost fully grown, there is small fear in this direction, and, provided the food is of the right kind, they can consume large quantities without any injurious effects, since their natural activity enables them to digest an amount otherwise dangerous were it not for the energy of youth. Food should not, however, be given in very large quantities at a time; after a long fast there is danger of the birds eating too greedily and the food is consequently only imperfectly digested. A moderate amount frequently given is the secret of success in feeding young stock.

One very important matter is the necessity for studiously recording the age of both cockerels and pullets. Of course, in June and July, and with some breeds, August, no difficulty is experienced in knowing the age, at any rate to within a week or so, but by the end of the year, when the flock is all gathered together for inspection, it is no easy matter to know with absolute accuracy, without some distinctive mark, the chickens that were hatched in February and March from those of later date. If one cannot discriminate between the April chickens and those hatched in March, it is not of great importance, since the former are equally suitable for breeding purposes as those hatched earlier, but when it comes to May hatched chickens it is quite another matter, and one which later on may have disastrous results. An exact knowledge of age is more important where the heavy slow growing breeds are concerned. The question is one rarely regarded, yet almost every poultry keeper who rears large numbers of chickens extending from the beginning of February to the end of May, has experienced the difficulty of knowing their exact ages when the birds are almost fully grown. There are, however, many simple devices by which the risk of breeding from immature stock, with its subsequent dangers, may be entirely obviated.

## Belgian Trade Mark for Eggs.

The new Co-operative Society in Belgium, of which M. P. J. de Henan, of Wondelgem is President, has adopted a trade mark for eggs, consisting of a circle in which are the words "L'œuf Frais Belge O.F.B. Société Coopérative."



## POULTRY COOKERY.

## CHICKEN CUTLETS.

METHOD No. 1: Boil six ounces of Naples macaroni in white stock until sufficiently cooked, then drain it carefully and cut it into small rings; put these into a stewpan with half a pint of thick white sauce, six ounces of cooked chicken, two ounces of boiled ham, and two ounces of cooked mushrooms all cut up into small dice about a quarter of an inch square. Stir gently over a moderate heat until the various items are well blended, then turn the preparation out to cool. When quite cold, make it up into tiny cutlet shapes and cover these with a smooth firm coating of beaten egg and fine white breadcrumbs. Pat them gently with a broad-bladed knife dipped frequently in cold water—or better still, with a proper palette knife if such is at hand—until a good shape has been obtained. When ready, place the cutlets side by side in a frying basket, and fry in boiling clarified fat until coloured a rich golden brown; then drain carefully and dish up neatly on a border of mashed and seasoned potatoes, fill in the centre with a mound of some skilfully prepared green vegetable, pour some creamy tomato sauce round about, and send to table very hot.

No. 2: Take six ounces of cooked chicken and three ounces of boiled ham and chop them together; then pound the meat until perfectly smooth, adding at the same time seasonings according to taste; add four ounces of fine breadcrumbs which have been soaked in milk or white stock, and well squeezed, and three lightly beaten fresh eggs. Mix thoroughly and put the preparation into well buttered cutlet tins, then smooth the tops neatly and place the moulds in a shallow pan; cover the tops with buttered paper, pour in sufficient boiling water to reach half way up the moulds, and poach gently for about fifteen minutes. When done enough, dish up the cutlets on crisply-fried, well-drained croûtons of corresponding size and shape, and sprinkle half the number with sifted egg yolk, the other half being sprinkled with very finely minced parsley. Arrange tastefully on a hot dish-paper, garnish with curled bacon, slices of lemon, and sprigs of parsley, and serve at once.

No. 3: Coat the inside of the requisite number of cutlet moulds with liquid aspic and just before this sets press into it a pretty arrangement of lean ham, white of egg, and French beans. These items may be cut in julienne strips, or stamped out in small fancy shapes according to taste, the chief point being to contrast the colours, so that when turned out the cutlets may present the most attractive appearance. When the decoration is firmly set, fill the moulds with a carefully prepared, pleasantly seasoned puree of chicken and ham in the usual proportions; smooth the tops, brush them over with more aspic, and when this is quite firm, turn out the cutlets, arrange them in neat order on a flat bed of well mixed green salad, garnish the

edge of the dish with slices of hard-boiled eggs and fresh tomatoes arranged alternately, and serve.

No. 4: Most delicious cutlets can be made of the legs of the birds when the more delicate parts have been used for other purposes. Remove the thigh bones but leave the drumstick in its place. Put the legs into a stewpan, cover them with good white stock, and simmer gently until quite tender; then take them up and put them to press between two dishes with a weight on top until quite cold and firm, when they must be trimmed neatly to the shape of cutlets. Cover these entirely with a savoury paste prepared as below, then fry in a generous supply of clarified fat from twelve to fifteen minutes according to the thickness of the cutlets. When done sufficiently, drain thoroughly and dish up on a hot dish paper, or a neatly folded napkin; garnish round about with small baked tomatoes and sprigs of parsley, and serve as hot as possible. *To prepare the savoury paste*, put into a stewpan a tablespoonful of finely minced onion, a teaspoonful of chopped parsley, a teaspoonful of mixed herb powder, two ounces of fresh butter, and a pint of carefully prepared mushrooms rather finely chopped. Stew gently until the various items are sufficiently cooked, then draw the stewpan on one side and stir in three large well-beaten fresh eggs; continue stirring until of a smooth thick consistency, then use as directed. If preferred, or if more convenient, these cutlets may be baked instead of fried, either method being equally suitable.

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## THE CULT OF THE YOKOHAMA IN ENGLAND.

The strides the breeding of Yokohamas have made in England during the past six years are wonderful. We find classes put on for these beautiful birds at all the principal shows, and where big pens are provided, the entries come up well, and the exhibits attract large gate money. The ideal way to exhibit these birds would undoubtedly be in high cages, so that they stand on a perch; otherwise the full beauty of their tails and their saddle hackles must be marred by dragging round the floor of the pens.

Many fanciers have found out the utility qualities of these birds and landowners are glad to possess them. The cocks add beauty to their farmyards for crossing with heavy hens for table purposes and the hens as sitters and mothers for the pheasant eggs, whilst in many parks where there are aviaries, these birds are some of the most attractive subjects therein. Bantams of this breed are improving day by day, and ere a few more seasons pass we shall have some very perfect specimens of these midgets. At present the colours are white, duckwing, and black red in bantams, whilst in the big variety we may add the silver spangle.



## TWO MODEL POULTRY FARMS.

Orpington, England.

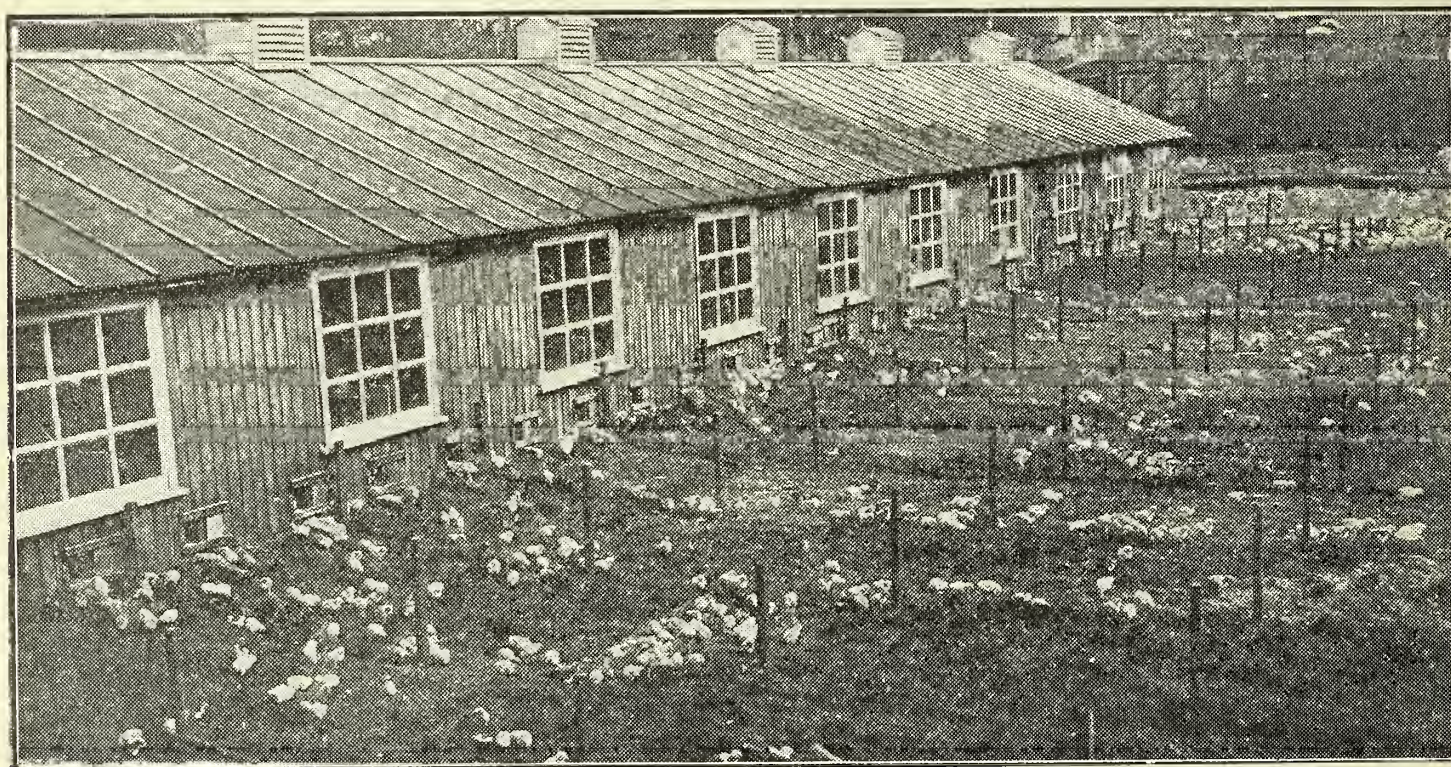
Le Touquet, France.

THE capacity for work possessed by some people appears to be almost limitless. Mr. W. H. Cook is a fair example of this class of individual. Not content with the great amount of labour entailed by managing his English farm, fulfilling judging and professional engagements in all parts of the Continent and elsewhere, he must needs establish a second farm in France.

In the past the industry of poultry keeping—both fancy and utility—has been handicapped very severely by the lack of real “hustlers” who made a study of the business. At any rate, there is one who has shown that the commercial

with numerous out-buildings, and between 50 and 60 acres of meadow land and orchard. The land is well situated and has a southern aspect. The buildings include an incubator room, measuring 80ft. by 24ft., with an egg capacity of 13,000; an exhibition house with accommodation for 130 birds, and a brooder house capable of housing 4,000 chickens; whilst the poultry houses and runs—over 400 in number—accommodate about 5,000 breeding stock.

Although Mr. W. H. Cook is well known for the high exhibition quality of his stock, it is not so well known that he has a great belief in



A view of the Mammoth Brooder House, the inside of which is fitted with 32 sectional brooders, each capable of holding 150 chickens, with a total of 4,800. The outside grass runs are 180 feet long and 8 feet wide. Owing to the length and size, the photograph only shows about half the original.

training so necessary in other walks of life can be adapted to the needs of this industry with successful results.

The name “Model Poultry Farm” is given to both establishments, and seeing that they are laid out on the most up-to-date lines the term is not a misnomer.

#### TUBBENDENS POULTRY FARM, ORPINGTON.

Tubbendens comprises a fine old residence—mentioned by the way in the Domesday Book—

the commercial value of utility poultry keeping. Special attention is given at Tubbendens to this very important branch of the industry, and everything possible is being done to encourage farmers, cottagers, and small holders to develop this side of agriculture. It is only in the extreme types of exhibition birds that it is found the economic value has been lowered, and this type of bird is not kept at the Model Poultry Farm

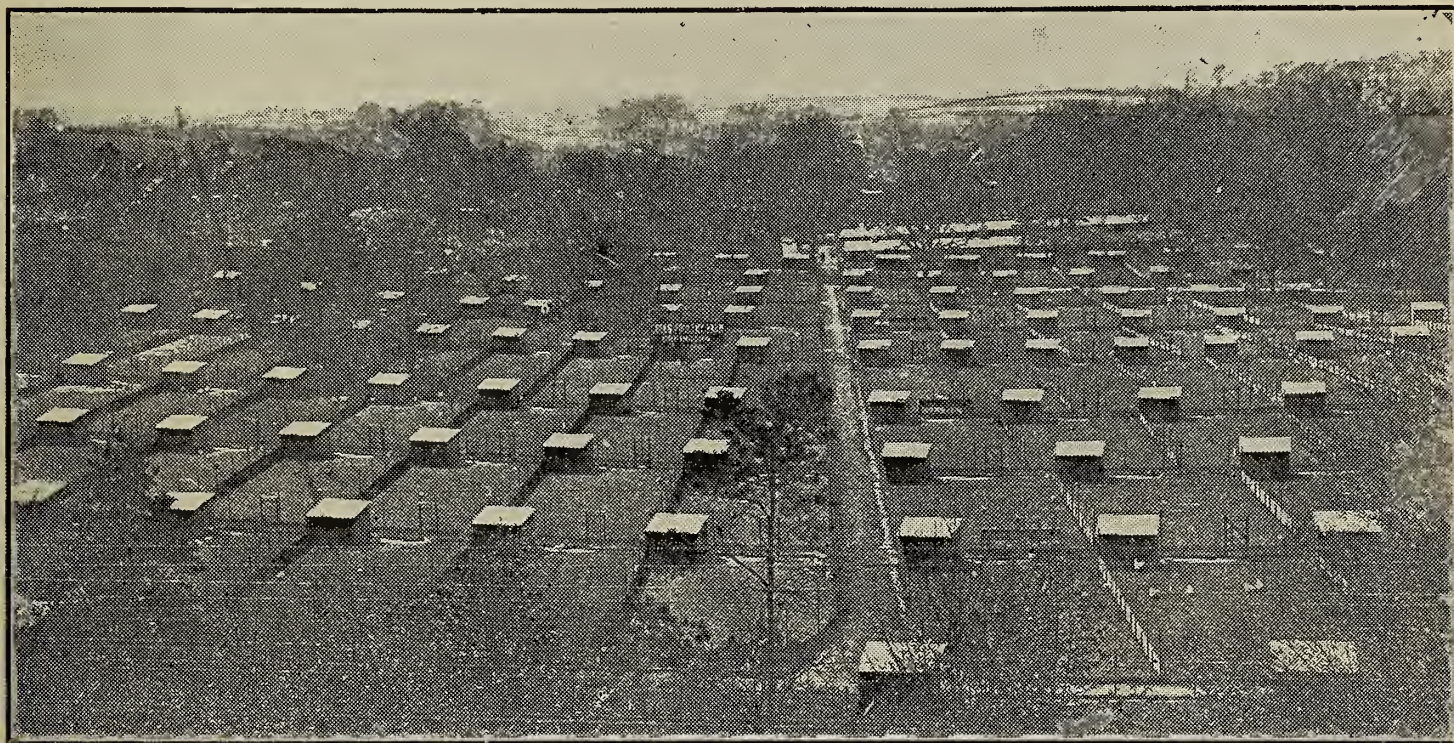
Apart from the sale of stock birds, day-old chicks, and eggs for hatching, a further addition is contemplated, namely, that of supplying eggs



for the table and fattened poultry. From a purely economic point of view this is of most interest to the man in the street, for the real value of fowls is for producing food stuff for the community at large. To develop this branch of the work on all sides will have the effect of lowering the importation of foreign supplies of eggs and table poultry.

Paris—is famous as a fashionable holiday resort, and it comprises all the usual features of such a centre. The site chosen for the farm is the picked place of the whole district. In all there are about 150 acres of meadow land, scrub and forest, and the soil being sand it is an ideal spot for a poultry rearing plant.

It is a surprising thing to note the changes



The above photo was taken from a passing train on the main line of the South Eastern Railway, and gives an idea of what a portion of the farm is like, as seen by the many thousands of passengers passing to and fro.

Practically all breeds are kept in the farm, as well as the Orpingtons. These include the Black, White, Buff, Spangled, Jubilee, Blue, and Cuckoo. The last two mentioned have only been introduced within the past few years by Mr. W. H. Cook. The Blue Orpington is an exceptionally fine bird with grand plumage and a striking colour. The Cuckoo is similar to the Barred Plymouth Rock, but with white legs and flesh, and it is of the genuine Orpington type.

Mr. Cook pays a considerable amount of attention to ducks, turkeys, and bantams, and the near future is likely to see a development of this side of the industry.

### LE TOUQUET, FRANCE.

A very important point to receive consideration before establishing a poultry farm is the site. Go where he would we do not think Mr. Cook could possibly have selected a better situation for his new venture than that chosen at Le Touquet. The place itself—distant about 16 miles from Boulogne and on the main line to

that come about in different industries, not only at home but in foreign countries. At one time, and only a matter of fifteen years ago, we looked to France to guide us in utility poultry matters, but things have changed to such an extent that now many countries are far in advance of France in the successful raising of market poultry and the production of eggs. It seems almost like “carting coal to Newcastle” to establish an English poultry farm in France, but there is no doubt that it will act as an object lesson to all those interested in agricultural matters in that country.

The entrance to the farm is on the main road, and after passing through the large gates the offices are seen on the left. In front stretches the main avenue with pens on either side, the right being occupied by waterfowl and turkeys, and the left by bantams. Running by the side of the avenue there is a stream, and this is crossed by means of numerous rustic bridges.

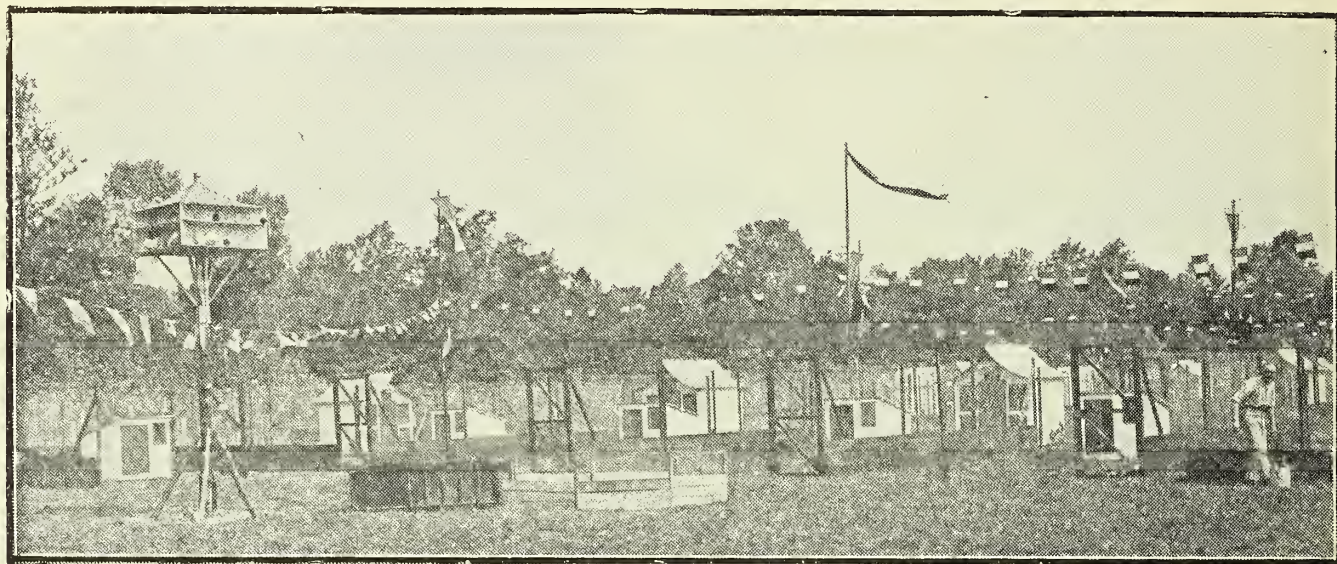
There are already upward of 50 runs all tenanted by various breeds. The runs vary in size according to the breed for which they are



intended, and the shape of the land. They vary in area from 300 square yards to 600 square yards. The houses are six feet square, with open wire fronts, and they are well ventilated at back and front. A perch runs the width of each, below which are the dropping board and the nest boxes. Although artistic features have

adopted. We imagine that competition will be pretty keen in this direction, for the French are noted for the quality of their table poultry, but this will not matter to Mr. Cook, for competition is his very life's blood.

Hatching and rearing have been attended to, and there are a goodly number of chickens of



A snap-shot of some of the pens at the Le Touquet Poultry Farm in France, which is admitted to be the finest, the best laid out, and most practical poultry farm on the Continent. No expense has been avoided to make it such, whilst the entire farm, with its valuable breeding stud of high class poultry, can be inspected without going through a single gate, a feature much appreciated by all visitors. At the same time it is a large saving of labour.

no utility value in this connection, the houses are all painted white, picked out with green, and the roofs are green with white ridges. The latter by the way are double, being boarded inside and covered with corrugated iron outside.

A number of breeds are already represented in the pens, including Orpingtons, Leghorns, Wyandottes, Hamburgs, Sussex, Faverolles, Minorcas, Andalusians, Anconas, Croad Langshans, Silkies, Bantams, Geese, Ducks, Turkeys, and Pheasants, totalling in all 43 varieties. During the past few years there has been a big demand in France for English birds, the principal breeds called for being Orpingtons, Wyandottes, and Sussex, together with Sebright, Pekin, and Old English Game Bantams.

Other live stock is kept at the farm, this comprising dogs and pigeons. The breeding of dogs is to be a feature of the place, and in the range of kennels are found retrievers, setters, cocker spaniels, and fox terriers. The pigeons are purely ornamental, but there is no saying that this branch may not be tackled some day in the future.

The fancy and utility sides are to be linked together at Le Touquet, as it is intended to make arrangements to supply the needs of the district in eggs and table birds. For the production of the latter the Sussex system will be

all kinds. Some of these are being brooded by hens, others again are being reared in foster-mothers. A good beginning has been made, and everything points to a successful issue of the venture.

Accommodation is provided for a number of pupils at both farms—at Orpington and Le Touquet—and every opportunity is afforded them of gaining a thorough insight into the working of an up-to-date poultry farm. Many former students, who have been trained by Mr. Cook, have shown the value of his teaching by creating for themselves records in various parts of the world.

Pupils at either farm will have the advantage, if they so desire, of spending part of their time on the other establishment. The value of studying other methods under different conditions cannot be over estimated, and no doubt many will avail themselves of this chance. Many would-be poultry keepers fail to realise that there is as much, if not more, to be learnt about this industry than in any other business or profession. The two Model Poultry Farms can cater for all classes of pupils, teaching them one or all of the many branches of the industry.

An open invitation is given by Mr. Cook to any who desire to visit his farms, on any day, at any time, and we can only advise those who



are interested in poultry to avail themselves of this offer, for whether they are poultry keepers in reality or in embryo, they will come away bringing with them a fund of useful information. The farm at Orpington is only two minutes

walk from the station, and the farm at Le Touquet is easily reached by the electric light railway from Etaples on the Boulogne and Paris main line.



The archway at the entrance to the Le Touquet poultry farm, through which over 2,000 visitors passed on the 19th and 20th of July. The main road outside was almost blocked with motor cars bringing visitors from all parts, many having driven up from Paris, a distance of 180 miles.

## NEW BREED OF POULTRY.

### AN ABERDEENSHIRE LADY'S ENTERPRISE.

"In these days of striving after improvement in agriculture and everything that tends to the welfare of our agricultural interests, it will be interesting to many to learn that an enterprising poultry enthusiast in the Tyrie district of Aberdeenshire—Mrs. A. Boddie, Bridgend—has introduced into Scotland a breed of poultry which in the near future must by their merits take a leading place among our best egg-producers. The new breed is Sicilian Buttercups. As their name implies, they are originally from the Mediterranean, to which we are already indebted for our Leghorns, and they derive their surname from the fact that their comb resembles that flower. They come to us by way of America, where their fame as egg-producers have brought them to the front.

"Only two fanciers in England as yet possess them and Tyrie has the distinction of being the only place in Scotland where specimens of the breed may be seen. They are graceful in form, hardy and quiet, early maturers, non-sitters, good foragers, and prolific layers of large eggs—good points these, which will appeal to those who desire the best in poultry. Perhaps the strongest point in their favour is that, unlike other breeds, their prolificacy does not abate before the third or fourth year, in this way lessening the work entailed in rearing new stocks of pullets annually. It is safe to say that

after their merits are known they will rival in popularity their co-nationals, the Rhode Island Reds. A trio have been procured at a large figure from one of the English Fanciers, while a sitting of eggs procured from the other is in course of hatching. Already the lady enthusiast has booked several sittings at a guinea a dozen, which will well repay her for her enterprise."—*The Aberdeen Journal*.

## THE AGRICULTURAL SHOW AT THE HAGUE.

In view of the agricultural exhibition which is being held at The Hague during September, it is interesting to note that the Great Eastern Railway offers the best route for visitors attending this exhibition. The Harwich-Hook of Holland route is the quickest to Holland. Passengers from the northern and midland counties of England can travel to Parkeston Quay, Harwich, alongside the steamers in through carriages from Manchester, Liverpool, Birmingham, Warrington, and Sheffield, and in a corridor restaurant car train from York, thus saving all the trouble and expense of crossing London.

The steamers which perform the service of this route are Turbine, fitted with every convenience for the comfort of passengers.



## POULTRY KEEPING IN QUEENSLAND.

The interest that is being manifested in Queensland is increasing to such an extent that Mr. W. Hindes, the Poultry Expert at the State College at Gatton, finds that it is difficult for him to keep pace with all the correspondence received. To overcome the difficulty he has recently published a small bulletin dealing with the poultry industry. The methods he is advocating are very similar to those suggested for this country, as will be seen by the quotation we make below, and we believe that he is working along right lines in emphasising the the advantage of the portable house system for the use of farmers.

"Although our Queensland climate is one of the best in the world for poultry-raising, we find comparatively few people who give any consideration to the industry in question. If our farmers kept a few head of good poultry, instead of a large number of nondescripts, they would find that they pay better than almost anything on the farm. In the wheat districts, if movable houses were used, thousands of fowls could be kept on the stubble for two or three months after the harvest, with practically no expense. Movable houses could also be used with advantage on any large farm, and, if they were shifted every fortnight on to fresh ground, the birds would almost find their own living. I would like to see this system adopted by our farmers for six or seven months of the year, and I am sure it would prove a paying concern. Poultry would also be of great benefit to our orchardists, for, beside returning a handsome profit, they would greatly assist in keeping down scale and other insect pests; moreover, the manure which would be distributed is one of the best-known fertilisers. Poultry-keeping would also go well with dairying, and, if run with movable houses, would entail very little extra labour; moreover, surplus milk could not be put to a better use than feeding it to poultry, as it is especially good both for fattening table birds and also for egg production. Farmers and others with plenty of room have an advantage over the ordinary householder; their birds can find a large amount of natural food when running at large, and they can also grow on the farm a great deal of the food required. Another good plan for the farmer is to divide his cultivation into two parts—crop one, and run the poultry on the other; then, when the crops have been harvested, move the birds and put under crop the portion on which they had been running. Many American farmers work on this plan, which has been found to give excellent results both in the way of increased crops and in good returns from the poultry. Movable houses may be used for this system, and these can either be built on wheels or fitted with slides. The above is usually called the "colony house" plan and it will be found to be the least expensive of any known system."

### Pure Breeds versus Mongrels.

Mr. M. A. Schofield, writing in *The Rural Californian* says: "At a world assembly in London some time ago, one speaker insisted that he had rather have a healthy burglar for a father than a consumptive bishop, provided that at birth his environment should henceforth be of the best. There you have it. We had better have a mongrel of strong vitality for starting an egg-producing flock than a chicken line bred for 50 years, should

the vitality of the latter be impaired. But we want to be careful, for a mongrel because he is a mongrel has nothing in his favour. Neglect and poor feeding may have weakened this bird as well as the line-bred bird, though from opposite causes. All the records for rapid growth, for profitable poultry husbandry, for the heaviest egg production individually, are held by purebreds. Yet for fear that we get "chesty" about the matter let us not forget that the mongrel hens at the Storrs laying contest produced more eggs on an average than did all the purebreds."

### A Soldier's Hen.

Marcus J. Wright, in his work, "Memoirs of Robert E. Lee," the great confederate general, records that: "Among a lot of fowls sent to the Confederate camps was a hen which at once captured the heart of General Lee. It was the only one spared from the entire flock, the steward of General Lee having discovered that she daily laid an egg. She proved to be a very discriminating hen, for she selected the General's tent to make her daily deposit. Instinct seemed to teach her that he was fond of fowls and domestic animals. Every day she would walk to and fro in front of his tent, and when all was quiet, walk in and find a place under his bed and deposit her egg; then walk out with a gratified cackle. Appreciating her partiality for him, General Lee would leave his tent door open for her to come in. This she kept up daily for weeks, Bryan always securing her contribution for the General's breakfast. She chose a roosting place in the baggage wagon, and on breaking up camp to meet Hooker at Chancellorsville, Bryan found room in the wagon for the hen. During the battle she seemed too much disturbed to lay, but as soon as the engagement was over she fell at once into her regular routine. She accompanied the army to Gettysburg.

"One night, when preparing for retreat, with the wagon loaded and everything ready, the question was raised, 'Where is the hen?' By that time everybody knew her and took an interest in her; search was made in every direction, even General Lee joining in it. She was found at last perched on the wagon, where she had taken her place of her own accord. She accompanied the army in all its marches and counter-marches for more than a year and finally came to a rather unsentimental end. In the winter of 1864 General Lee's headquarters were near Orange Court House. The hen had become rather fat and lazy, and on one occasion, when the General had a distinguished visitor to dine with him, Bryan, finding it extremely difficult to procure material for a dinner, very inhumanly killed the hen, unknown to any of the staff. At the dinner General Lee was very much surprised to see so fine a fowl; all enjoyed it, not dreaming of the great sacrifice made upon the altar of hospitality. When she was missed, and enquiry made, Bryan had to acknowledge that he killed her in order to provide something for the gentlemen's dinner."



# TABLE OF PRICES REALISED FOR HOME, COLONIAL, AND FOREIGN POULTRY, GAME, AND EGGS FOR THE FOUR WEEKS ENDING AUGUST 16, 1913.

## ENGLISH POULTRY—LONDON MARKETS.

Description.	1st Week.		2nd Week.		3rd Week.		4th Week.	
	Each.		Each.		Each.		Each.	
Surrey Chickens ..	3/0 to 4/6		2/9 to 3/6		3/0 to 4/0		2/6 to 3/6	
Sussex ..	3/0 " 4/6		2/9 " 3/6		3/0 " 4/0		2/6 " 3/6	
Boston ..	1/9 " 3/0		1/9 " 2/9		1/9 " 3/0		1/9 " 2/9	
Essex ..	2/0 " 3/6		1/9 " 3/0		2/0 " 3/3		1/9 " 3/3	
Capons ..	5/0 " 6/0		5/0 " 5/6		5/0 " 5/6		4/6 " 5/6	
Irish Chickens ..	1/9 " 3/0		1/6 " 2/9		1/6 " 2/9		1/6 " 2/6	
Live Hens.....	1/6 " 2/3		1/6 " 2/3		1/6 " 2/3		1/3 " 2/3	
Aylesbury Ducklings	2/6 " 3/9		2/6 " 3/6		2/6 " 3/6		2/6 " 3/6	
Ducks ..	2/3 " 3/3		2/3 " 3/0		2/3 " 3/3		2/0 " 3/0	
Goslings ..	5/0 " 6/6		5/0 " 6/6		5/0 " 6/0		5/0 " 6/6	
Turkeys, English	—		—		—		—	
Guinea Fowls .....	—		—		—		—	

## ENGLISH GAME—LONDON MARKETS.

Description.	Each.		Each.		Each.		Each.	
	Each.		Each.		Each.		Each.	
Grouse ..	—		—		—		4/0 " 6/0	
Partridges ..	—		—		—		—	
Pheasants ..	—		—		—		—	
Black Game.....	—		—		—		—	
Hares.....	—		—		—		—	
Rabbits, Tame.....	1/0 " 1/6		1/0 " 1/6		1/0 " 1/6		1/0 " 1/6	
" Wild ..	—		—		—		—	
Pigeons, Tame.....	—		—		—		—	
" Wild ..	—		—		—		—	
Wild Duck ..	—		—		—		—	
Ptarmigan ..	—		—		—		—	
Sand Grouse ..	—		—		—		—	
Hazel Hens .....	1/9 " 1/0		1/9 " 1/0		1/9 " 1/0		1/9 " 1/0	

## ENGLISH EGGS (Guaranteed New-Laid).

MARKETS.	Per 120.		Per 120.		Per 120.		Per 120.	
	Eggs per dozen.		Eggs per dozen.		Eggs per dozen.		Eggs per dozen.	
LONDON ..	9/0 to 10/0		8/0 to 9/0		9/6 to 10/6		9/6 to 10/6	
Provinces.	1/2 " 1/2		1/3 " 1/2		1/2 " 1/2		1/3 " 1/2	
CARLISLE ..	1/2 " 1/2		1/3 " 1/2		1/2 " 1/2		1/3 " 1/2	
BRISTOL.....	—		—		—		—	

## FOREIGN POULTRY—LONDON MARKETS.

COUNTRIES OF ORIGIN.	PRICES REALIZED DURING THE MONTH.			
	CHICKENS. Each.	DUCKS. Each.	DUCKINGS. Each.	GEES. Per lb.
Russia ..	—	—	—	—
Belgium ..	—	—	—	—
France.....	—	—	—	—
United States of America..	—	—	—	—
Austria ..	—	—	—	—
Canada ..	—	—	—	—
Australia.....	—	—	—	—

## IMPORTS OF DEAD POULTRY & GAME. MONTH ENDING JULY 31ST, 1913.

FOREIGN GAME. LONDON MARKETS.	Price Each During Month.	COUNTRIES OF ORIGIN.		DECLARED VALUES.
		Poultry.	Game.	
Capercailzie ..	—	Russia ..	£2244	£265
Black Game ..	—	France ..	£319	£265
Ptarmigan ..	1 1/2	Austria-Hungary ..	£2072	£265
Partridges ..	—	United States of America ..	£4635	£265
Quail ..	—	Other Countries.....	—	£265
Bordeaux Pigeons ..	1/0 to 1/4	Totals.....	—	£265
Hares ..	—			
Rabbits ..	—			
Snipe ..	—			

## IRISH EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
Irish Eggs	9/6 to 11/0	9/6 to 11/0	9/6 to 11/0	9/6 to 11/0

## FOREIGN EGGS.

DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.
	Per 120.	Per 120.	Per 120.	Per 120.
French ..	9/6 to 11/0	9/6 to 11/0	9/6 to 11/0	9/6 to 11/0
Danish ..	9/6 " 11/0	9/6 " 11/0	9/6 " 11/0	9/6 " 11/0
Italian ..	9/3 " 10/3	9/3 " 10/3	9/3 " 10/3	9/3 " 10/3
Austrian ..	7/0 " 8/3	7/0 " 8/3	7/0 " 8/3	7/0 " 8/3
Russian...	7/0 " 8/9	7/0 " 8/9	7/0 " 8/9	7/0 " 8/9

## IMPORTS OF EGGS.

MONTH ENDING JULY 31, 1913.			
COUNTRIES OF ORIGIN.	Quantities in Gt. Hund.	Declared Values.	
Russia.....	1,357,709	£506,407	
Denmark .....	409,784	£193,746	
Germany .....	10,304	£3,987	
Netherlands ..	88,665	£43,218	
France .....	48,194	£21,800	
Italy.....	60,648	£26,535	
Aust.-Hungary ..	16,695	£6,284	
Other countries	45,142	£18,083	
Totals .....	2,037,144	£820,140	



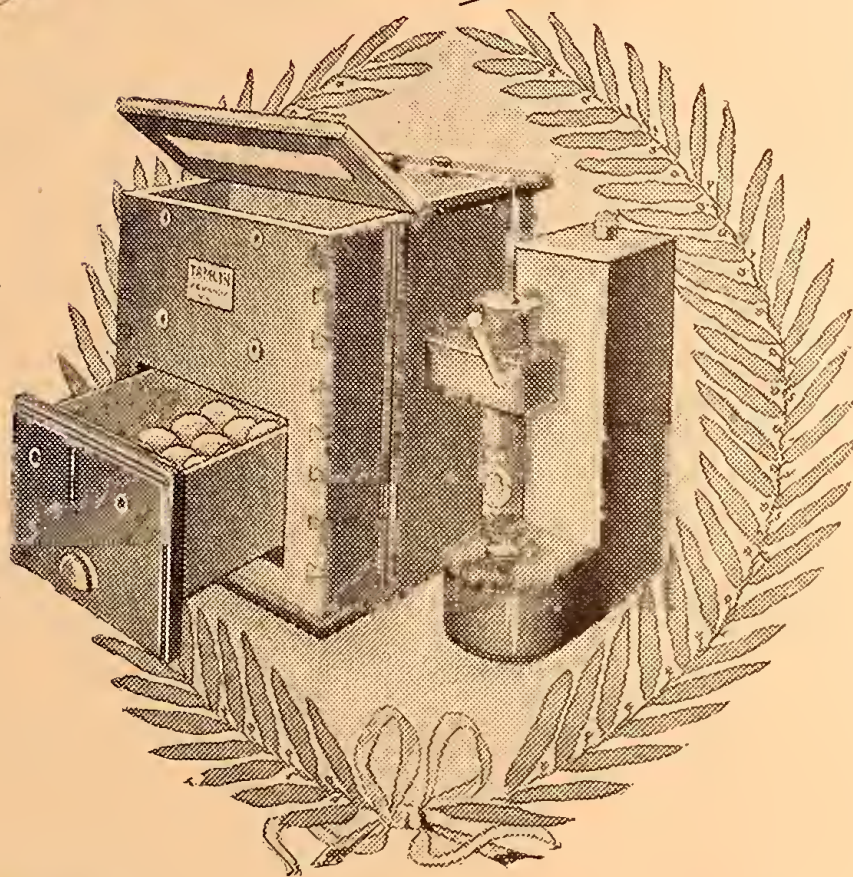




# TAMLIN'S INCUBATOR

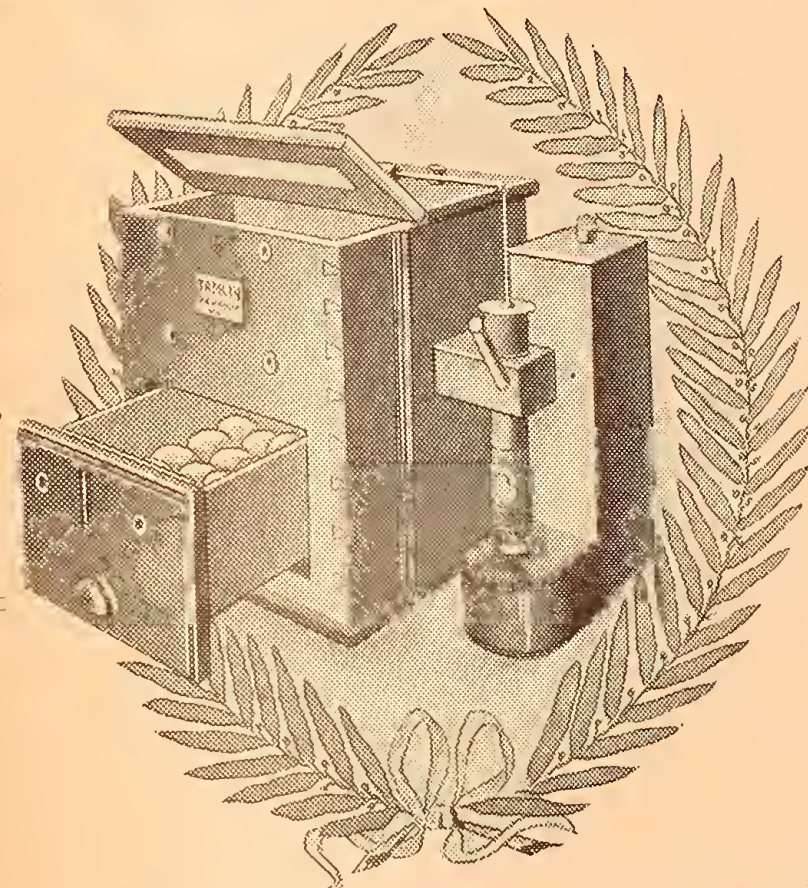
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DUC DE CONNAUGHT,  
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**MESSRS. HAYWOOD, YOUNG & Co., Port Elizabeth.**



## THE NORTHERN UTILITY POULTRY SOCIETY.

For twelve years the society has carried out laying competitions, but previously they have been for four months only. This year the society is making arrangements for taking a plot of land, three acres in extent, and are fitting it up with a model poultry plant, and the competition will be run there under the direction of the joint hon. secretaries (Messrs. Charles Longbottom and Frank Toulmin), and the management of the birds will be in charge of a practical poultry man.

The competition will be run in two sections; one section will be housed in the large semi-intensive house (divided into separate sitting and non-sitting varieties); the other section will be placed in the small houses running in lots of twelve birds.

Accommodation has been provided for forty pens. The large semi-intensive house is 36 feet long, 15 feet wide, and 11 feet to the ridge; is open fronted, fitted with shutters, well lighted and ventilated. There are forty-two trap nests; the perches are over dropping boards, thus allowing the whole of the floor space to be used for scratching purposes. The cabin has been made specially for this competition from designs and dimensions worked out by several of the largest utility poultry farmers in the country, who have had extensive experience of the running of large flocks of birds on semi-intensive lines. One acre of land will be allowed, divided into four plots, so that each section in the house will have an alternate run.

### Prizes.

First prize, silver cup value £5/5/-, given for the highest combined score of eight birds. Second prize (combined pens), £3. Third prize (combined pens) £1/10/-. Fourth prize (combined pens) £1. Fifth prize (combined pens) 10/-.

Pen of four birds making highest score in each section, £1/10/-.

A silver cup value £2/10/- will be given for bird making the highest individual score in the competition.

£1 will be given for the bird making the second highest score.

A prize of 5/- will be given for highest score each month by any pen of four birds.

The society's silver challenge cup, value £5/5/-, will be awarded to the pen making the highest score during the first sixteen weeks in the small houses. The winner of this cup will receive a memento cup value £1/1/-.

First and second class certificates will be given in respect of all pens of sufficient merit.

Mr. J. N. Leigh offers a special prize of £1/1/- for the pen of four birds laying the largest number of first grade eggs in the competition.

*The committee will be pleased to accept any further offers of special prizes*

### Local Section.

A local section will be run to encourage small poultry keepers who may not be in a position to enter the larger section with eight birds, and will be confined to members within a radius of eight miles of Burnley.

Each pen in this section will contain four birds and will be run entirely in the small houses, the same rules shall apply except that the entrance fee shall be 10/- for each pen.

### Prizes.

First prize, silver cup value £2/2/-. Second prize, £1. Third prize, 15/-. Fourth prize, 10/-. Fifth prize, 5/-. Also 5/- for pen making highest score each month.

### General Particulars.

Entries close September 1st, 1913.

Birds to arrive October 6th and 7th, 1913.

Competition begins October 15th, 1913.

Competition ends October 14th, 1914.

The entry fee is £2 for each pen of eight birds.

As soon as possible after the 2nd September those competitors entitled to compete will be sent an addressed label, with the pen numbers thereon, for attaching to the hampers in which their birds will be sent to the Competition.

### Rules of Laying Competition.

1.—The competition shall determine the best pen of pure bred birds by the quantity and quality of eggs laid. The pen producing the greatest value of eggs during the competition to be the winner.

2.—For the purpose of the competition the value of the eggs shall be calculated each week upon the approximate average price of the markets of London, Bristol and Wolverhampton, during the year 1911, as set out in the returns of the Board of Agriculture and Fisheries.

3.—The eggs shall be graded into three classes:—those which scale 2 ozs. and over to be termed 1st grade, and to be valued at the approximate average market price; those that scale under 2 ozs. and not less than 1¾ ozs. to be termed 2nd grade and to be valued at the approximate average market price, less 10 per cent.; those under 1¾ ozs. and over 1½ ozs. to be valued at the approximate average market price, less 20 per cent. No eggs weighing under 1½ ozs. to score.

4.—The competition shall extend over a period of twelve calendar months.

5.—A pen shall consist of eight pullets of one breed hatched not earlier than January preceding the competition. Four pullets shall be placed in the large semi-intensive house and the other four, together with two other pens of four birds each, in one half of the smaller houses.

6.—The birds shall be the bona-fide property, for a period of not less than four months preceding the competition, of the competitors.

7.—All competing birds shall be at the appointed yard not earlier than seven days before the competition begins.

8.—In the event of the death or disablement of any bird, the competitor shall be entitled to replace same by one of the same breed and age.

9.—The committee reserve the right to return any bird which they consider over age, immature, or not sufficiently typical of the breed it represents, or otherwise unsuitable; but the competitor shall be allowed to replace such bird before the commencement of the competition.

10.—Not more than two entries, one of a sitting and one of a non-sitting variety, shall be accepted from any farm.

11.—Any competitor not complying with these rules shall be disqualified.

12.—In the event of any dispute arising on any point connected with the competition, the decision of the committee of the Society shall be final.

13.—The society's challenge cup shall be won three times in succession to become the absolute property of the winner, and must be returned in good condition on such date as will be arranged by the secretary.

Joint hon. secretaries for the competition:—

C. LONGBOTTOM,

27 St. Matthew Street, Burnley.

FRANK TOULMIN,

West Cliff, Landseer Street, Burnley.



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## THE POULTRY CLUB.

The Monthly Meeting of the Council was held on Friday, August 8th, 1913, at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C.,

There were present Mr Richard Watson in the chair, Rev. E. Lewis Jones, and Messrs. W. Clarke, W. Rice, P. H. Bayliss, C. R. Goode, Harold Corrie, L. C. Verry, Charles Thellusson, and T. Threlford, Hon. Sec.

The Minutes of the last Meeting were read and confirmed.

Many new members were elected.

The following Societies were duly associated :

The Reading and District Fanciers' Association,  
Hon. Secretary, A. Wise, 2, Brighton Road,  
Early Rise, Reading.

Beckenham Smallholders' Society, Secretary, F. Shorter, 1, Gwydor Road, Elmer's End, Beckenham.

The following shows announced to be held under Club Rules were granted specials:—Campine Club Show, Leghorn Club Show, Aughton Show, Cardiff and S. Wales Poultry Club, Cuckoo and Blue Orpington Club Show, Kinellar Show, Leatherhead Show, Maryborough Poultry Club, and Variety Orpington Club Show, Rumbles Society and Prentegne Society.

Correspondence. Various letters were read and left in the hands of the Secretary to deal with.

Club Benefits. The sub-committee further reported on this scheme and after some discussion it was referred back for further information.

Annual Election. Messrs. C. Tyrwhitt-Drake, W. Clarke, Captain Allen with P. H. Bayliss (Hon. Secretary) were appointed a sub-committee to carry out the annual election, and receive instructions as to the mode of procedure.

New rules and alteration of rules. Mr. P. H. Bayliss the Hon. Sec. of the Rules Committee received permission to ask members to send him any proposals for new rules or alteration of existing rules so that they might be considered by the Committee before appearing on the Agenda for the Annual Meeting.

The next Meeting of the Council will be held at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C., on Friday, September 12th, at 2 p.m. All prospective members names must reach the Hon. Secretary on or before September 4th, and if residing in a county having a branch, through the Secretary of same. T. Threlford, Hon. Secretary and Treasurer, St. Luke's Square, Victoria Docks, London, E.

## THE UTILITY POULTRY CLUB.

### A DEVELOPMENT GRANT.

The Utility Poultry Club who applied for grants from the development Fund have now heard from the Commissioners. The application to enable another Twelve Months Competition to be held at the Harper Adams College has been granted and a sum of £225 has been placed at the disposal of the Club in accordance with the scheme and estimates lodged with the application.

The Commissioners have not yet definitely decided whether they can make a grant towards the suggested Competition to be managed by Mr. J. N. Leigh at Seddlescombe, near Battle, for the purpose of testing two methods of poultry keeping—Ordinary, and Semi-intensive, but it is expected that a favourable reply will be received.

As regards the proposal for a Progeny Test, the Commissioners are at present unable to come to a decision, as they consider it is essential that scientific authorities should first be consulted.

The Committee of the club held a meeting lately, when the details of the two competitions were settled, and it is hoped to issue them to the public shortly.

Arrangements are being made for accommodating 50 pens of 6 birds each in the existing plant at the Harper Adams College to which certain improvements are to be made. This plant was acquired by means of a grant of £500 out of the Development Fund last year, and is now being used for the present Competition. On this account the new competition will not begin until the end of October.

The Competition at Seddlescombe will, it is anticipated, be run in two sections with 32 pens of four birds in each, and competitors will be required to enter a pen in both sections in order that the two systems may be tested. The Competition should prove extremely interesting and ought to receive adequate support from the poultry keepers.

The particulars and conditions will be obtainable in due course from the Hon. Secretary of the club, L. W. H. Lamaison, Merstham, Surrey.

## THE UTILITY POULTRY CLUB.

### Twelve Months' Laying Competition.

Broodiness is the prevailing note in the report just to hand of the tenth month of this competition. In spite of this—and the manager, Mr. F. W. Rhodes, states that no less than 50 per cent. of the birds are affected—the egg yield for the month (4 weeks) shows a slight increase 7884 eggs as against 7831 eggs last month. This amounts to an average of 13 eggs per bird for the 28 days, by no means a poor average for the time of the year.

The Manager also draws attention to the fact that the White Leghorns have considerably improved their positions this month but a study of the table of results to date would seem to shew that it is unlikely that in the remaining three months (12 weeks) they can so improve their positions as to hold leading places at the close of the competition on the 14th October, at the same time they should be able during the period to maintain a distinct advantage over the broody varieties.

As regards positions there is little change from last month. Pen 60 White Wyandottes still hold the first place with a total record of 1062 eggs (value £5 5s. 7½d.). This score gives them a very substantial lead over Pen 86 Buff Rocks which led for so many months but now take second place with a total score of 947 eggs (value £4 19s. 1d.).

Pen 32 White Wyandottes hold third place with a total score of 992 eggs (value £4 14s. 11¼d.).

The highest record for the month has been made by Pen 7 White Leghorns with a score of 125 eggs (value 11s 1¼d.).

The health of the birds has been quite satisfactory.

Those poultry keepers who can take a day's holiday in this holiday month would be well repaid by a visit to the Competition and the authorities of the Harper Adams Agricultural College, Newport, Salop, where the competition is being conducted, are always ready to welcome visitors.

The scores of the leading pens are as follows:—

Order.	No. of Pen.	Breed.	Total eggs to July 22nd.	Total value to July 22nd.
1	60	White Wyandottes	1062	£5 4s. 7½
2	86	Buff Rocks	947	£4 19s. 1
3	32	White Wyandottes	992	£4 14s. 11¼
4	45	" "	901	£4 7s. 3¼
5	29	" "	950	£4 6s. 1½
6	35	" "	896	£4 4s. 11½
7	24	Black Leghorns	871	£4 4s. 10½
8	54	White Wyandottes	910	£4 3s. 11½

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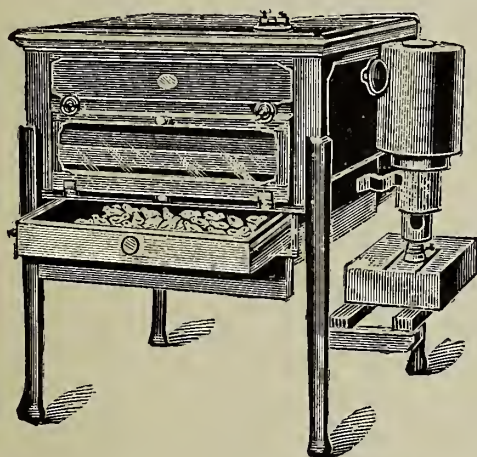
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## GLOUCESTER INCUBATOR

by means of our New Patent Self-turning Egg-tray.

The illustration depicts OUR PATENT LAMP, which holds sufficient oil for the whole hatch, and is a vast improvement on the self-fillers hitherto sold with incubators. It is permanently fixed in position, and the burner is attended to by withdrawing a slide to which it is fitted, to a convenient position in front of the incubator. Being made to contain a large body of oil, it is free from all risk of fire as it is always cool, and as no vapour can be given off, there is no smell and no loss by evaporation, as is the case with small reservoirs which soon get heated. This lamp is supplied with any Gloucester Incubator without extra charge.

### PRICES OF INCUBATORS.

40 egg size ..	£2 10 0	150 egg size..	£4 5 0
66     "     "	3 0 0	240     "     "	6 0 0
100    "     "	3 15 0	390     "     "	7 5 0

Prompt despatch Guaranteed. Carriage Paid.

Our PATENT SELF-TURNING EGG TRAY turns all the eggs in a second by one movement of the hand without the slightest jar or vibration. The eggs can be turned without opening the door, so that the temperature can be kept absolutely constant. It is an enormous time and labour saver. Thousands flocked to see it at the Dairy, Manchester, and Crystal Palace Shows, and it was the unanimous opinion that it was the best invention ever brought out for the improvement of incubators.

Our PATENT REFLECTOR will enable the Thermometer to be read with the greatest ease.

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## THE SICILIAN BUTTERCUP CLUB.

A Committee meeting was held at the Poultry World Office on August the 18th for the purpose of electing a President to fill the vacancy caused by Mr. A. C. Gilbert's resignation. Mr. G. T. Protheroe in the chair, the minutes of the last meeting having been read and letters from the following. Lady Wilson, Mrs. Jones, Miss Theobald, Messrs. F. Tomlinson, Futtley, T. C. Solomon, E. G. Wippell.

The Sec. also reported the financial position, giving a balance on the right side, and stated that a Cup fund had been suggested by Mr. F. Uttley (cup to be competed for annually by fully paid up members) and donations promised by Mr. F. Uttley, Captain Tooze, Mr. G. T. Protheroe, Mr. A. P. Shave, and the Sec.; also a "Special" from Miss Theobald.

Lady Wilson was then elected President; Mrs. Jones, Mr. F. Uttley, Mr. A. P. Shave, Vice-Presidents; Miss Lee on the Committee; Mr. H. Banney elected member. With a vote of thanks to the Chairman the meeting closed.

I shall be pleased to hear from anyone interested in the above breed.

W. J. TOOZE, JUNR., Hon. Sec.

## The Biggest Poultry Breeder.

The distinction of being the largest poultry breeder and egg producer in the Commonwealth belongs to Mr. S. Craig, of Belmont, near Perth, Western Australia. Under ordinary conditions he runs between 6,000 and 7,000 laying hens, and, including chicks, his birds periodically total 9,000. In the flush of the laying season he gathers more than 200 dozen eggs a day, and during February and March, when the market price averaged 2s. a dozen, his cheque exceeded £100 a week. Practically the whole of his stock are White Leghorns, which he finds are easily the most profitable for his purpose—egg production. He began commercial poultry raising eight years ago on a very small scale, so that his progress has been phenomenal. With wise judgment he selected for his run 40 acres of land in the virgin scrub, and, except so far as it was necessary to facilitate the erection of the netting, did not remove any of the timber. Consequently the birds live under conditions as nearly natural as it is possible to have them. The soil consists of sand, which provides an abundance of grit, and soon absorbs all moisture from above, thus ensuring dry feet. In these circumstances it is not surprising that the fowls never suffer from disease—the worst trouble they have is in the form of a slight cold—and are entirely free from the various insect pests which afflict those less favourably situated.

## South African Ducks.

The *Farmer's Weekly*, of Bloemfontein, gives an account of the duck farm at Craighall, Johannesburg, owned by Mr. Wentworth, at which he raises 500 to 1,000 ducklings per month. One statement made by him is indeed remarkable, namely, "I have been rearing ducks for ten years, and during the last eight I have never had one die from sickness."

## An Error.

We regret that the inscription under the block appearing on page 461 in our issue of last July contained an error. It should read "A Breeding pen of Buff Orpingtons, the property of Major Barnes, Ipswich." We regret the mistake.

## TRADE ITEMS.

### A Useful Catalogue.

Mr. Randolph Meech's name is so well known in the poultry world that it is unnecessary to call attention at any great length to his specialities. We have just received however, his catalogue, which is excellently got up, containing full particulars of the poultry appliances for which he is so well-known. A good deal of attention is given in this catalogue to the invention of various styles of intensive poultry houses, which system is receiving so much attention at the present time.

### Messrs. Toope & Co.

It must not be thought that the well-known incubator, made by Messrs. Toope and Co., of High Street, Stepney, is a toy because it is not made of wood. The asbestic board used on the outside of the machines is an expensive item—considerably dearer than wood. The incubator is a scientifically constructed instrument and special attention has been given to the questions of temperature and ventilation. Mr. R. Toope, the inventor of the machine, is a member of the Heating and Ventilating Institute and is conversant with all the problems of this somewhat difficult subject.

One of the great advantages claimed for asbestic board over wood is that it hardens with exposure, and it is able, therefore, to withstand the trying climates of our Colonies. Owing to the moisture absorbing nature of wood the inside of the incubators are lined with metal, thus ensuring that all moisture is retained in the machine until removed by natural expansion. The incubators can be lighted by electricity, thus lighting up the whole of the inside and saving the risk of fire through using matches.

The regulation of the moisture is controlled through a slide on the top of the machine. The method of heating is by two systems, hot air and hot water, so that the buyer has both methods in one machine. This system makes use of the heat of the flame as much as possible, very little indeed being wasted.

We are informed that Messrs. Toope and Co. are the only manufacturers of Mammoth incubators in Great Britain, while besides this their's is the only Mammoth made in the world which can be heated either by oil or gas. These giant machines are made in sections or units of 600 eggs each and can be added to make a capacity of 20,000 eggs.

Among recent shipments have been a Mammoth to New Zealand, an 18,000 machine to Rhodesia, and a 20,000 machine to Sweden, while enquiries are coming for them from all parts of the world. The export trade is a large and a growing one.

### Mr. Tamlin's Exports.

The following is a list of W. Tamlin's exports for July, 1913; one 60 incubator, to Nairobi, order of J. Terry & Co.; three 100 incubators, to Natal, S. Africa, order of C. T. Maling & Sons; six 100 and six 60 incubators, three 100 and three 60 foster mothers, to Fernand Colman, agent for Belguim; one 30 incubator, to Colombo, order of Junior Army and Navy Stores; one 60 foster mother, to Newcastle, Australia, order of Army and Navy Stores; fifteen foster mothers, ten 100 and ten 60 Incubators, to A. Newcomb & Co., agents for New Zealand; six 30, six 60, and six 100 incubators, six 100 foster mothers, to A. F. Phillips & Co., agents for Rhodesia; one 100 incubator, one 100 foster mother, to Miss F. Loyd, Belgium; one 60 incubator, to E. Edwards, Cape Colony, S. Africa; one 60 incubator, and one 60 foster mother, to W. Longstaff, Peru, S. America; one 200 incubator, to J. Mc. Tavish, Newfoundland.



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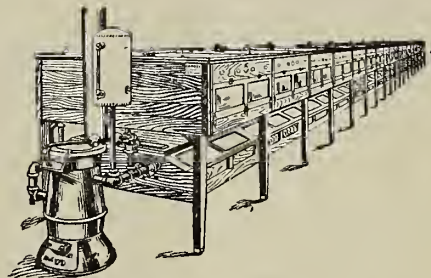
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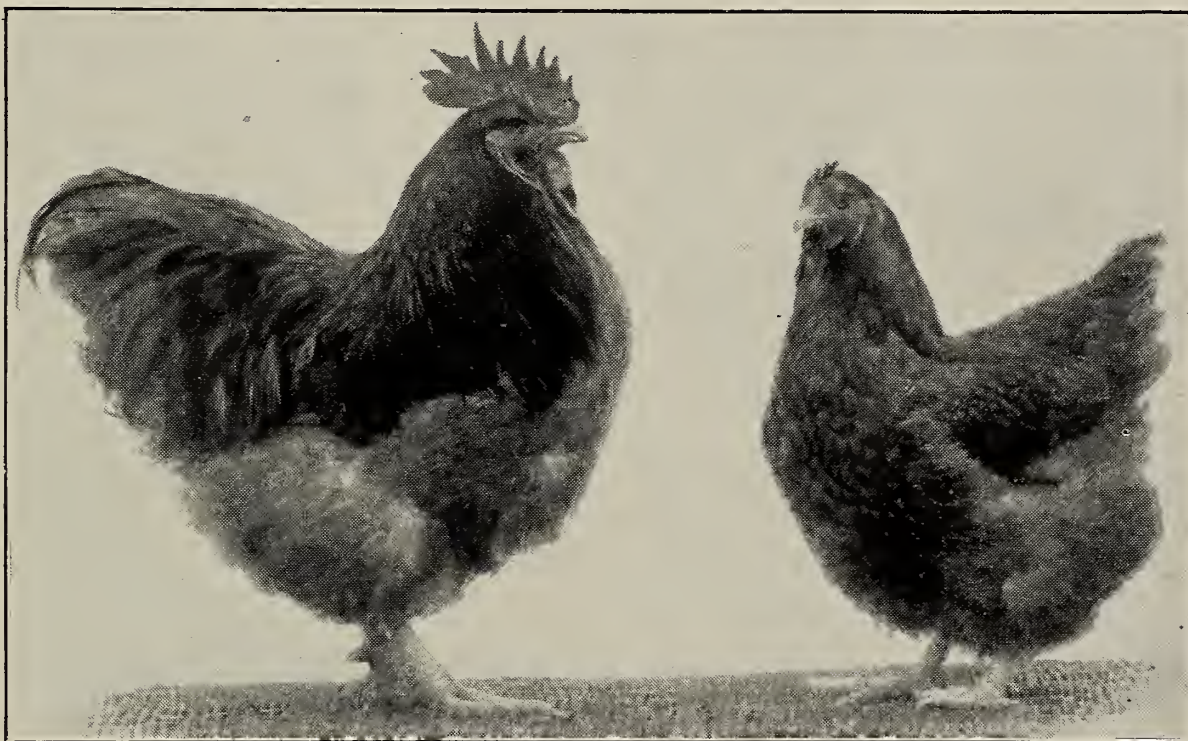
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